The Educational Record

Published Quarterly by

The American Council on Education

Volume 11 APRIL, 1930 No. 2

Editor:

C. R. MANN

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Accredited Higher Institutions, 1930

Annual Subscription, $2.00

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NATIONAL CAPITAL PRESS, INC., WASHINGTON, D. C.

The Anticipation of Future Needs[1]

IF WE would look forward into the future, we can best see perhaps what are some of the prospects before us by first taking a look back. We need not go far—say fifty years. If we try to comprehend all that has been accomplished through the training of man, through study and research, in the last fifty years, and if we visualize in addition the discoveries that have been brought into service in our civilization, we are almost conscious of a sense of shock as we look ahead wondering what the next fifty years will bring.

I need not enumerate the changes that have taken place. You in your own lifetime have been conscious of most of them. There is a tendency on the part of all to consider things as somewhat finished at the point where we are today. When I studied history as a boy, I was greatly surprised to find in my history book a picture of the President of the United States who was then in office. History seemed to be something that had gone before. To realize that history is in the making and that mankind is on the move was a new conception to me as a boy. But we must think of our advance as that of a steady flowing stream.

There is, however, one unit that is being carried forward on that stream but that has comparatively little chance for change. That unit is the human being. We can change his environment, as we have done. But how much can we change him? Think for a minute of our great athletic program, of all that we do in that direction in America for the youth of the land. Yet no one could say that we have developed any stronger man than was Samson, any greater runners than those of the Marathon. We have not improved the human body to any great degree. And when we consider the mind of man, certainly we cannot claim that we have any very great advantage over Solomon in the matter

[1] Stenographic report of an address before the Department of Superintendence of the National Education Association, Atlantic City, N. J., February 26, 1930.

of wisdom, or that any greater philosophers have developed than grew up among the Greeks, or that any greater moral leaders have ever appeared than those of ages that have gone by.

Christ developed in an atmosphere that we would consider almost abhorrent in our modern sanitary civilization. Yet He created a method of living, a philosophy, a moral code that has never been excelled and that is still the best guide we have.

We must face the fact that we ourselves have molded our environment but that as individuals we are not capable of changing so very much our own capacities or abilities. The only direction in which we seem to have advanced is in mass action. We have given much wider scope and training to great masses of men in all parts of the world. Instead of the favored few, we now have in such a democracy as ours the favored many. We offer them all whatever opportunities they may need to go forward by self-advancement. The limits of our universe are set by the limits of the human mind. With new ideas and with new truths we are constantly breaking down the barriers that surround us. With the microscope, the telescope, the test tube and all the other appurtenances of the laboratory we have opened up new zones in which the human mind can entertain itself and in which it can bring about advancement.

Did you ever stop to think it would have been just as easy for the surgeons in Caesar's army to have set the broken bones of the soldiers as it is for the surgeons in our army today? The only thing that they lacked was a man like Rōntgen who could bring together the proper contrivances of glass and steel and wire and chemicals and vacuum to make the X-ray possible. The X-ray has always been in the world. Rōntgen simply made it usable.

The same is true of all of these new inventions. Solomon could have had his temple lighted with electricity if Edison had come before Solomon's time. The universal laws that control nature, that are here about us, do not change. We discover them, and our success in handling our environ-

ment depends entirely upon our capacity to use these laws and to get in harmony with them. We can in no way defy them with success.

We have stumbled along in the history of the race, multiplying in numbers, gradually covering this great globe upon which we are living, until there are more of us today than ever before; and more are coming, largely because of our capacity to develop and increase our food supply. There is no good reason for believing that the numbers of men will decrease materially until we have bred right up to the bread line. In the long run, if there is food and opportunity, the children come along in one country as in another.

Along with this increase in numbers and this increase in knowledge has come the development of certain kinds of governmental procedures. The king is passing off the stage. Democracy, with its leadership of various sorts, is taking his place. At the present time we see three great groups of continental peoples struggling forward with somewhat different ideals and ideas. We, with Canada, represent one such group. This mass here on this continent is more or less unified by similar ideals, standards, methods, and wealth in trying to work out democracy along one line. Russia, with its control of a great continental area that covers large parts of both Asia and Europe, is another. There they are trying to work out a great program on somewhat different lines. In fact, one of the great contests in the world today is to determine which method works best with human beings, ours or theirs. Watching that contest is another great group in China, with its hundreds of millions of people just emerging from under the clouds of tradition and superstition, with standards shifting in every direction. They are wondering which is the best method, that of the United States and Canada or that of Russia, for the development of those great masses of human beings as they struggle for more power, more happiness, more room.

We must think in large terms as we view these questions. We must be conscious of our own individual limitations, conscious of the universal laws that control us, critical and care-

ful of the things we do, for we are now in the age of science and democracy. Science! Think what science has brought to us in public health, in personality, in welfare, in industry, and in the series of services it renders.

Then think of democracy and its spread over the world at the present time. The great question for educators is: Can we harmonize science and democracy? Democracy works by majority rule in one form or in another. It makes decisions through individual opinions expressed at the ballot box. A majority decides whether one course or another should be carried out. But the decisions of a majority in a democracy have no weight in science. Science has no majority rule. Science has only one rule—the truth, the universal laws controlling this universe.

How can we harmonize these two? Some of our attempts at harmony are rather grotesque. I remember a law that was presented to one of our state legislatures. In fact, it passed one of the branches of the legislature. It told in fine legal terms just what symptoms a cow should show when she had tuberculosis—just what the cow should do when infected by the bacillus of tuberculosis was laid down in the law ready for the governor to sign. It was a splendid law, but it had two great defects. One was, it was difficult to get its import over to the cow. The second was, it was even more difficult to get it over to the bacillus. Yet, those living forces, the cow and the bacillus, determine what the symptoms are regardless of any legislature or governor or majority decision. You can legislate your heads off, but you can't change the laws of physics in regard to a single little drop of water. You can legislate that a drop of water when put on a red hot stove shall stay round. It doesn't; it goes into steam, and there is nothing that can be done about it by any human being. That is the problem we face. How can we harmonize science with democracy? This is the greatest question before educators. There is a place for political decisions. We are now watching in our own country the attempt to settle by majority vote, by legislation, a great series of problems that cannot be settled that way. They can be settled only by

the expert, not by the voter, not by his representatives, if they are to be settled right.

There is a zone in which democracy can operate. But there are many zones in which democracy cannot operate except through the expert. The problem of the educator is to insert the expert into democracy. Out of that combination will come success. A failure to bring about that combination means failure for us all, because we are so large in the mass that, if we make mistakes, they are mass mistakes, and as such they can be more damaging than ever before in the history of man, at least in volume.

The expert is trained by the experimental method. The experimental method tries to find out, knowing that, if the truth is touched, anyone else going through the process can touch it again. Electricity doesn't change its rules with the changes in political administration. It goes on just the same. Nor can the experts that control electricity change their methods in handling electricity because of a change in political administration. Yet electricity, steam, and all these various other things are the forces through which we are building up our civilization.

Through science we are at the same time learning more and more about ourselves. I need not review here the great advances that have been made in public health and in personal health. You know how one by one, through the skill and patience and curiosity of men, men specially trained have been able to drive out certain diseases from our community. We know more about nutrition; we know more about the care of the young. In this process of developing all of these procedures we are at the same time developing a new shell for ourselves. That shell is made up of steel and concrete and pavement and wires and artificial ventilation and artificial lighting, that keeps us up at night—a whole series of new things in our environment. We are, in fact, if we are not careful, in danger of becoming mere menagerie animals, caged, captured by ourselves. For we drive out of this environment the trees, the flowers, the birds, the grass, the open spaces, the things that have always made

life and happiness for the human being. And if we make ourselves mere menagerie animals, no matter how well we may understand nutrition, no matter how well we may handle ourselves under such conditions, well—you know what happens to a menagerie animal. It doesn't breed well; it doesn't have vigor; it has too much leisure; it loafs; it wastes time; it gets fat; it is no good, in the long run, in its biological processes. That is the thing we face. Are we going to become no good through the very environment we ourselves build up? Are we going to be crushed by our own machine? Are these concrete walls and these steel girders coming down on us? That is the question that we must face as educators. What must we do to meet these issues? Personality is the greatest thing we have. But in the mass, with democracy, with the controls of science, personality has an ever more difficult time to express itself.

In the mass, as we educate these great groups, taking in everybody, personality is pushed down in the picture more and more; and yet we must seek for personality. We must seek for genius, or the leadership by the expert that I spoke of a few moments ago may fail us.

Out of these rising tides of masses, with people representing everything in our high schools, we must segregate those who can go farther to good advantage. Democracy does not mean that everybody has an equal brain and an equal body. They have only an equal chance. So we have to think in terms of selection, of segregation, if you please, of human qualities, as we go forward in this process, or we may lose everything in the mass.

How shall we find, control and develop these personalities? What is personality? We hardly know. We know it when we see it, and we know that it is getting more difficult for personality to express itself except in the old ways of a beautiful piece of sculpture or a beautiful picture or a poem or a song or a piece of literature. It is more difficult for personality to inject itself into our political life. The rules we have invented have become so predominant that personality must often mold itself to them. We must struggle

all of the time to see what we can do to uphold the dignity of the human being as such.

One of the most interesting experiments in the American school system since its very inception has been the struggle to keep religion out and get character development in. We have kept religion out for political reasons. Opportunities to follow great moral leaders are kept out of the schools because what those moral leaders have presented come to us in the form of religion. We have to get some substitutes. Are we succeeding with it? Isn't that one of the big questions before us in this age of science and democracy? Are we keeping personality and character development as we go on training our youth? You know we have to be very careful not to become the prey of superstition, savagery, and prejudice. The easiest thing we turn on is prejudice. You turn it on when somebody of a different race comes along, somebody from a different city; prejudice is turned on like a flash of electricity in the presence of other things. It is so easy to turn prejudice on. When you turn it on, you join the crowd. You are no longer thinking; you are simply an emotional being. Your intellect has stopped. Yet, in the world, that turning on of prejudices controls great elections and the relationships of nations.

What are we going to do about superstition? It is around us everywhere. I think we must take the attitude of the colored mule driver who said, "When I has anything to say to a mule, I says it to his face." We must look this thing in the face and realize that these superstitions and prejudices play a large part in the things we do. They are inculcated in such subtle ways. You know how when riding along in the automobile, even of a university president, if something is said about new tires, someone may say, "We haven't had a puncture for six months," and then look around to find wood to knock on. He could just as well have put his hand up to his head.

Superstition is in our thinking. It is an undercurrent, and it is very important for us to cut that out of the child's development as a personality. We cannot wisely in this

age decide what we do by superstition or by prejudice if we are to maintain safe relationships with these great universal laws that control us.

What about the future of education in such a democracy as this? I wonder if we ever looked our education squarely in the face to see whether our methods are all that they might be. When we tried our methods of schooling upon the American Indian, I think we made a colossal fizzle of it. We have been at it for fifty years, and if the Indian has improved under this educational treatment, it is hard for a new Secretary of Interior to find it out. We did not adapt what we have. What did we do in the Philippines? We took our kind of schooling, gave it a little Spanish flavor—a little tabasco sauce—and tried to put it into the mind of the Filipino. It has made a fine politician out of him, but how good a prospective citizen of the Philippine Islands?

If those things are true of other peoples, and I think they are in a certain measure, how are we succeeding in the things that we are doing with the American boy and girl? How much have we analyzed our job? How much time are we wasting? You know as well as I do that we pace the American schools at the speed of the lower half instead of pacing them with the upper 25 per cent at least and then taking those who cannot go at that rate and putting them where they can do the work that is given them and be happy. We keep in our schools and universities a large percentage of students who are unhappy, unsatisfied, unproductive, and not doing their work because it is not in tune with their mental capacities. We know that. You all know that. But there is some absurd superstition that democracy means all must do the same thing. We follow that superstition and thus inject expense and waste and unhappiness into our educational system clear through to the top.

Segregation of ability is one of our responsibilities. Then what shall our method be? Shall it be the same as we have had in the past? We are making a little attempt now to see whether we are as smart as the Chinese. The Chinese have set up a mass education program to cure illiteracy in China.

They have worked out a simple system so that for a comparatively few cents they can bring an adult up to the point where he can read a simple newspaper that probably has more in it than anyone needs to read. Can we do the same thing here if we want to for our adult illiterates? We are trying to find out whether perhaps there are not new methods that may be applied to stimulate ambition and desire so that, with just a little light, more will be sought.

I think that methods can be discovered to help us there, and that some of them may well be taken into the school system. You know our trouble is that, when once we have built a machine, we like to operate it. We build the school machine, and then we like to operate it. When I went in as a young university president and suggested some change in a machine that was only twenty odd years old, some of the older members of the faculty looked on me more as a curse or a blight than as a help. I was proposing to change something that they had built up. Most of us, as we grow older, become fearful of change.

Walter Camp, the great coach, once said to me, "The other day I was standing on the sidelines where my son was playing in the same position that I used to play in the football team. I saw him come charging down toward me with the ball under his arm and three big fellows running out to grab him. I just shivered. Then I realized that that boy was having the time of his life as I did at that age. He was crashing forward. He wanted to strike these people and get just as much distance forward as he could, and I knew that my bones were old. That is why I was fearful."

In our educational system we put in the struts and the supports, and then a lot of people spend all their time watching them to see that nobody takes them out or substitutes others. The educational machine isn't a machine. It is a flow of forces constantly changing—new people, new children, new ideas, always on the move. The one thing that it must not do is crystallize. If it crystallizes, then democracy with its education gets out of tune with science.

Have we enough knowledge and understanding and elas-

ticity so that we can go forward into the future with comfort and safety? One of our great aims in education has been to groove the mind of the youth so that the old currents would flow easily through that mind, percolating out perhaps more or less from those main currents. Tradition is the thing we have talked about and insisted on. The college undergraduate catches it from us until he is worse on tradition than we are. Yet we do not know what is coming in the next fifty years. We look back at the last fifty, and we know that the boys and girls of today must have the most elastic minds imaginable if they are to meet with success the challenges of the world of tomorrow.

We must seek an educational training, not so much in specific things as a training adapted to the individual for the development of his personality. We should freely exercise his mind so that it will not become grooved but will remain plastic. We must drive out superstition and prejudice that are such blighting forces and bring in opportunity for growth, so that growth will continue as long as is possible in the development of every individual. Nature, with its processes of developing changes in the blood vessels, will develop senility soon enough. We must do what we can to prevent pre-senility by the educational procedures we adopt.

The basis of our advance is research—new things, new ideas. The degree of achievement we make will depend upon how many able minds are turned loose to bring us new information. Our success will depend upon our capacity to bring home to all the things that these men give us in the fields of research.

If we, with this combination of democracy and science, are to win, then the educator must be ever alert to see that those whom he trains keep personality, develop character, remain open minded, avoid superstitions. Only in that way can we improve this political machine of ours, now creaking and grinding, trying to solve by votes things that cannot be determined in that way. This great machine of ours may go down with a crash unless it has that kind of leadership.

RAY LYMAN WILBUR,
U. S. Department of the Interior.

Educational Policies of the United States Government[1]

IT IS understood that the National Advisory Committee on Education has been appointed by the authority of the President and the Secretary of the Interior to draft what has been termed a Constitution for American Education. It is to be assumed that the committee will review the federal legislation relating to education since the foundation of our government. The writer of this statement has before him the provisions of 129 federal statutes from 1792 to 1925 by which appropriations were made to the states for the support of schools or of research.

An examination of these statutes reveals one consistent and continuous policy throughout the first half of our national history, that is from 1792 to 1862; and a radically different policy throughout the second half of our history, that is from 1862 to the present time.

The principle controlling the educational policy of our government throughout the first period was expressed in the familiar words of the Ordinance of 1787: "Religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of knowledge shall be forever encouraged." Accordingly, federal appropriations to the states for schools from 1792 to 1862 were, as shown by the language of the statutes, for the general enlightenment of the people through elementary schools, academies, colleges and universities. These four types of schools are named in one or another of the statutes. In none of these statutes is there any restriction as to the subjects which should be taught.

This national policy was projected beyond 1862 to this extent, that lands already reserved by the National Government for general education within the territories were granted to the states when they were admitted into the Union.

[1] Presented at a conference of representatives of the National Advisory Committee on Education and of the Association of State Universities in Washington, March 3, 1930.

However, if the federal laws down to 1862 excluded no subject from the school curriculum, those in charge of the schools did so. They used all funds at their command, from whatever source, for reading, writing, arithmetic and the like in the elementary school and for so-called humanistic studies in academy, college, and university. They excluded from the school almost, if not quite altogether, training for the bread-winning trades and the application of physical science to the industries.

That was the situation in 1862. It was that situation which the Morrill Act of 1862 for the establishment of colleges of agriculture and mechanic arts was intended to correct. At that time, and long before, many men felt that the American school system was very objectionably one-sided. They shared the conviction of Benjamin Franklin that boys should be trained in school for the trades and that theoretical science should be brought down out of the clouds and set to useful work.[2] Many of the advocates of utilitarian schooling believed that such schooling is cultural as well as useful and is indeed essential for culture as well as for use. The writer shares this view.

It was these well-grounded convictions which led to the Morrill Act of 1862 and which have led to a half dozen similar acts since that time. The possibly unforeseen consequence has been a revolutionary change in the policy of the Federal Government in relation to education. In the first seventy years all federal money given to the states for education or for research went for general enlightenment through humanistic studies; none for directly utilitarian education. In the last sixty-eight years all the federal appropriations for education within the states have gone for trade education and for physical science in application to industry; none for general education or for the sciences of human relations. (A significant exception is noted later.) Indeed the so-called fifty-fifty acts, which require a dollar of state money for each

[2] Former Provost Edgar Fahs Smith of the University of Pennsylvania told the writer that Franklin tried hard, but without avail, to have that institution made a school for trades and industrial science.

dollar of federal money, often cause the states to divert money from the common school branches and from general enlightenment studies in the elementary school and high school in order to meet the federal appropriations for training in the trade. In actual effect the fifty-fifty vocational acts directly antagonize humanistic studies.

It is, of course, true that all studies, all sciences, all types of research now have for their support from various sources incomparably more money than any and all of them had in 1862. But this fact is not judged to be a reason why the National Government should cease giving money for trade training and for science applied to industry. On the contrary, it is held necessary to supplement the vast sums provided by state and local taxes and by endowments and by the industries in their research laboratories, with always larger appropriations from the National Government. The present writer believes in the wisdom and necessity of this general policy. But, if this policy is right, why is it wrong to provide adequate federal support for those general enlightenment studies which our government did support throughout the first seventy years of our history? If it is right for our government to help children in the elementary school and high school to learn trades, why is it wrong to help teach them to read and write?[3] If it is right to subsidize research in physical science in its application to the industries, why is it wrong to support the study of the sciences of human relations? What are these sciences? In the first pages of the new Cyclopaedia of Social Sciences the editor-in-chief, Professor Edwin R. A. Seligman, names these sciences as follows:

Purely Social Sciences: political science, economics, history, jurisprudence, anthropology, penology, sociology.

[3] There are two bills now before Congress (S. 1491, Nye; H.R. 2570, Brand; H.R. 3140, Glover) whose purpose is stated to be "to aid in the reduction of taxes on farm lands and to promote elementary education in rural areas." These bills make no provision for the children in urban areas, and including as they do the fifty-fifty principle, would tend to divert money from other educational work now carried on by the states. The writer has no information as to whether these bills are likely to pass.

Semi-Social Sciences: ethics, education, philosophy, psychology.

Professor Seligman names several subjects which have "social implications": biology, geography, linguistics, art.

The Government of the United States gives nothing to the states for the support of any of these sciences of human relations with one strange exception. Provision is made for research in rural economics and sociology. If that is right, why is it wrong for the Government to support the realms of economics and sociology which lie outside that definition and are no less important for the whole American people? Why, for example, should our Government, which joins the state educational institutions in the study of the fruit fly and corn borer, not join them in the study of crime?

In the Indiana State Reformatory there are now 1,934 inmates, of whom 752 are twenty years old or younger (recent letter from the superintendent). In the years 1923–1928, 1,274 persons were committed to the Indiana Penitentiary or to the State Reformatory from Marion County. Of these 451 were twenty-one years old or younger. Details are as follows:

1923–28

Crime	*Convictions*	*Age 21 or Under*
Burglary, entering house to commit a felony	221	106
Robbery and banditry	208	97
Larceny	364	125
Rape	42	13
Larceny of automobile	156	91
Forgery or fraudulent check	137	14
Operation of still or transportation of liquor	125	3
Wife desertion	21	2
	1274	451

	1923	1924	1925	1926	1927	1928	*Total*
Under 21	39	63	68	79	116	86	451

Mr. William H. Remy, the highly intelligent prosecuting attorney of Marion County during the years named, states that "by far the greater number of offenders appearing in the criminal court here are not sent to the reformatory at all, but, on account of their extreme youth, are sentenced to the

state farm. This is particularly true of first offenders. If these convictions for the same offenses were included with those I am sending you, you would be startled." He states further that there has been a rapid lowering of the age of those convicted within the past twenty years. Many of these youthful convicts come from well-to-do homes in Indianapolis.

Here is a threat more serious even in dollars and cents than the fruit fly and the corn borer. Here is what President Hoover has called a threat of the subsidence of foundations. We should study the case of each of these boys with the most perfect combination of scientific method, common sense, and personal sympathy. We should do this in every state in the Union. Government money and state money and money from every available private source should unite in this critical enterprise. Farmers, working men, business men, all good citizens are vitally concerned in such a study. Will the Government of the United States join the state universities in such a study? Not unless the study of crime in town and country can somehow be made to appear a part of agriculture and the mechanic arts.

Let me try to state in two sentences the situation which the committee appointed to draft a constitution for American Education confronts. The outstanding fact of our time, as we all see, is our enormous success in dealing with things by the application of physical science and our relative failure in dealing with human relations—a failure so great that, as our President said, we face a subsidence of foundations. What our government is doing is to give—as it should do—increasing millions to aid in the further mastery of things where our success is already supremely great, while it adds nothing in support of the scientific mastery of the human problems which we must solve or perish.

Is it conceivable that such a disastrously one-sided policy should be made permanent in an American Educational Constitution?

WILLIAM LOWE BRYAN,
Indiana University.

Federal Relations to Education

THE National Advisory Committee on Education has invited a number of national organizations to appoint cooperating committees. During the past two months conferences have been held with some of these cooperating committees for the purpose of informing the National Advisory Committee on Education of the significant factors connected with federal relations to the various educational interests of the country. For the information of those members of the committee who could not attend these conferences, digests of the more important evidence that was presented both verbally and in documents have been prepared and distributed to the members. Since these digests are of wide interest to all connected with education, they are here printed in full.

In distributing these digests, the committee desires that it be clearly understood that the statements herein are not expressions of the committee's opinion. These statements merely describe the evidence that was presented to the committee. All members of the committee are invited to submit additional evidence on any point which seems to be presented inadequately or in a manner to reflect bias or misunderstanding. The readers of the RECORD are also invited to send in additional evidence which they think is of real importance to the investigation.

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NEGRO EDUCATION

There are seventeen land grant colleges for negroes in the southern states, for a total population of about 10,000,000 negroes. These seventeen institutions receive annually a total of $338,000 out of about $13,000,000 from federal grants. This is about one-fortieth of the total for one-tenth of the population. The same sum is received by the Iowa State College, which serves about 2,000,000 population. Not one of these seventeen institutions comes near meeting the standards maintained or covering the area of service rendered by white colleges.

Forty years ago, when the second Morrell Act was passed, there were no negro land grant colleges and few negroes prepared to enter college. Therefore, although this act stipulates that the states divide the Morrell funds between black and white colleges, the existing white institutions received all the grants. The negroes do not ask that the funds allocated to white colleges be reduced, but that federal grants be so increased that negro colleges get an equitable amount when compared with that received by colleges for whites. It would require about $2,500,000 per year to do this.

While the second Morrell Act of 1890 stipulates that states should divide the grant as seems wise to each state, this subsequent act in support of experiment stations and agricultural extension did not actually bring about immediate division between two institutions. This did not begin until later. The state agricultural and mechanical colleges may and do employ some negroes for extension and home demonstration agents. These work under supervision of the state college. It was said negro supervision for negroes works better. Negroes are adept at fooling whites.

The research and experiment work of the experiment stations is done entirely by whites. In Alabama, for example, there are eight experimental farms on which all projects are planned and carried out by whites. Negroes may be employed as laborers. From this experimentation, as one representative put it, "The whites get not only better potatoes, but better white men. The negroes eventually get the better

potatoes, but they have to wait two or three years." They do not have the chance to develop negroes capable of carrying on experimentation.

Negro attendance at secondary schools is increasing rapidly in the South. Ten years ago 19,000 were so enrolled; now there are 96,000. The number has doubled in the past four years. The number of negroes prepared to enter college is increasing rapidly, but the state-supported college facilities open to them are so limited that relatively few, though of demonstrated capacity, can find opportunities to take college and professional work in state schools.

There are 47,000 colored churches in the United States, but there is little opportunity for graduate training of colored ministers. No southern state system of higher schools offers any opportunity for training colored physicians, dentists, lawyers, nurses, or engineers. Yet the demand for these is imperative, and experience shows that negroes have their quota of men and women capable of professional service.

Howard University has been the only federally aided institution for higher and professional training of negroes. This receives a grant for general support from the Federal Government. It has 2,100 students and an annual budget of $552,000. Two other similar institutions are developing with the help of private philanthropy. But these three cannot meet the increasing demand. There must be publicly supported institutions that give opportunity to blacks commensurate with that for whites. The limited federal support of Howard University is given in recognition of this necessity.

The attitude of southern states toward this situation is growing more friendly each year. The whites have troubles enough making funds cover expenses of white institutions. The negroes' needs must be pressed by whites to receive adequate attention, for per capita wealth in southern states is relatively low. Private philanthropy has done more than state authorities to help the blacks in their upward struggle.

When a local community has to contribute in order to secure portion of a federal grant, black communities suffer because they have so little money. Also the standards required by the Federal Government for receipt of federal

money frequently debar particularly needy schools from getting federal aid. Such standards, for example, as that teachers paid partially by federal funds must be college graduates, that the period of instruction in agriculture be not less than 90 minutes, that the home economics course must take up at least 160 hours of school work per year.

The federal funds act as a stimulus to new types of work and to higher standards. But the amount allotted to negro schools is too small to accomplish much toward equalizing opportunities of the blacks as compared with the whites. Friendly visits from well-informed federal officials, like those of specialists from philanthropic foundations, are a great help in stirring the imagination into action. The most difficult task in any case is to get the community to do its part, this for lack of local initiative and leadership.

The fallacy of insisting on an experiment station in every state was mentioned. There is a tendency to develop regional projects when the same project affects several states. The forestry service sets up regional stations. A series of regional stations might be a more effective plan of making the money go farther for both races.

The negro is having trouble getting a foothold in commerce and industry. He is better fitted for farming provided farming is a mode of living, not a job. At present foreign immigrants make farming pay down South while we native Americans "are fussing because someone does not give us a job."

THE DEPARTMENT OF SUPERINTENDENCE OF THE N. E. A.

Evidence was presented to show how the American ideal of comparable opportunity for all at all levels of schooling is leading to differentiation of types of schooling for different groups of youth—e.g., commercial, trade, vocational training—even at junior high and high school level. Also length of attendance is increasing; 51 per cent of elementary pupils now enter high schools and 34 per cent of secondary graduates now continue in college or other higher institutions. Both of these trends increase costs.

Many taxpayers are protesting against increasing school

costs. Local taxable wealth, particularly in rural areas, is relatively diminishing. Consolidation, mergers and chains are concentrating wealth in a few financial centers. Hence the demand, as in the Brand, the Nye, and the Selvig bills, that the Federal Government grant subsidies to the states to support general education as it now does for vocational education and for adult education of rural people.

The question was raised whether such federal subsidies are justified as means of stimulating new types of training, or as means of equalizing opportunity. That federal subsidies do stimulate local initiative and lead to local assumption of responsibility is shown by the fact that the states now supply $2.70 for every federal dollar to support vocational education. In one state this ratio is $9 local to $1 federal. This state needs no more stimulation, but the federal subsidy continues.

Both the need for equalization of educational opportunity and the difficulties of doing this by mere financial adjustments were discussed. Such equalization may be fairly successful in one school jurisdiction with one tax system. But each of the 48 states has its own unique method of appraisal and levy. There is no basis of comparison. The best educational opportunity for a group in one state does not cost the same as the best opportunity for a different group in another state.

It was reported that tax commissions are at work in a number of states. In Ohio, 30 per cent of the appraised wealth is real estate, but 70 per cent of the taxes are levied on this item. A severance tax is levied in some states to protect them from exploitation of natural resources by absentee owners. A state license fee for chain stores is under consideration.

Under pre-war conditions, when 50-50 subsidies were invented, the federal income came from sources not taxable by states. Federal grants then added to state resources. Now two-thirds of the federal income is from income taxes which states can themselves levy. Federal grants now come largely from the wealth of the states that receive them.

Emphasis was laid on the mobility of population. Some

means of insuring comparability of schooling must be found. This is nationally more significant than through highways.

The effect of federal subsidies on local management of schools was also discussed. Federal grants to vocational education require the state to establish a state board of vocational education to administer them. Approximately two-thirds of the states have made this board identical with the state board of education. The federal grants for agricultural extension and 4-H clubs are administered by the land grant college over which the state board of education usually has no control. Education in the counties or local units is thus subjected to three different authorities, two of which are required by the Federal Government as conditions for receiving grants.

Cases were cited in which a county has established one county board to control and unify all school and welfare activities within the county—schools, libraries, health, vocational training, agricultural extension, recreation, etc. This tends to distribute local expenditures for the best interest of the people of the locality as they see it, and tends to counteract the bad effects of diversity of authority higher up.

It was suggested that each state might consolidate control of its welfare work, including schools, in one board. Then all federal grants could be given to the state and their use adjusted by that board so as to yield greatest benefit to the people. Doubt was expressed as to competency of most present state boards to do this wisely.

Evidence was presented showing the benefits, often large, that local communities received from the research work of the Federal Government. The influence of reliable facts widely disseminated is often of greater value to local communities than is the enforcement of administrative regulations.

U. S. DEPARTMENT OF AGRICULTURE

The Federal Department of Agriculture spends about $13,000,000 a year for research, divided among twenty units on the basis of projects authorized by Congress. Part of this is used in cooperation with educational research institutions,

especially land grant colleges, but not limited to these. At present, about 25 per cent of federal research monies are used at land grant colleges, and a small per cent in cooperation with other institutions. The balance is used for research by the Department.

Each state receives without requirement for matching $90,000 per year from the Federal Government in grants for the agricultural experiment station at the land grant college; $15,000 by the Hatch Act of 1887, $15,000 by the Adams Act of 1906, and $60,000 by the Purnell Act of 1925. About 7,000 projects are under investigation, of which nearly 1,000 are in cooperation with divisions of the Department of Agriculture in Washington. The total expenditure for this experiment station work is around $15,000,000 yearly, of which $4,320,000 comes from the Federal Government. The total staff numbers 3,000. A federal agent visits each station each year to check up on the progress of projects and to advise concerning new projects and personnel. All of the projects and all appointments must be approved in Washington if federal funds are involved.

From 1887 to 1925 the experiment station projects were almost wholly directed toward increasing and stabilizing production. The Purnell fund may be used also for investigations concerning "manufacture, preparation, use, distribution, and marketing of agricultural products" and for "such economic and sociological investigations as have for their purpose the development and improvement of the rural home and rural life."

The "Purnell projects" now number over 1,000, about half of which are production projects and half in the newer fields of marketing, economics, and rural sociology. It has been difficult to secure competent investigators in these new fields.

The Department of Agriculture has not yet given official sanction to the pending bill S. 696, H.R. 7831, which proposes a federal grant of ultimately $50,000 per year to each state for support of an "Engineering Experiment Station" to conduct "investigations and experiments bearing directly on the development of engineering principles and technique

in relation to agriculture, the mechanic arts, and transportation; on the introduction of engineering procedure and management; on the utilization of power resources; on the development and application of machinery and equipment in economizing production; on the utilization of agricultural and trade wastes; and such other investigations as relate to the engineering features of production, sanitation, and public safety."

The present policy of the Department of Agriculture is to hold each state experiment station responsible for projects of only local or state concern. Projects in which the federal department cooperates are increasingly regional projects involving several states. All this research, both in the department and in the experiment stations, is becoming increasingly "fundamental" as distinguished from "applied." In the more fundamental research cooperation is sought from the best experts to be found, whether employed at land grant colleges or elsewhere.

This policy is possible now that the states have developed, with federal aid, efficient experiment stations of their own. Federal aid in establishing these stations was essential because the agricultural population is a far-flung people. Some cohesion had to be developed among them to stabilize the food supply, which is a vital matter to everyone. Since the state experiment station is now competent to handle local problems, the Department of Agriculture can use its research funds more effectively for larger regional projects and more fundamental scientific work.

The department conducts seminars and classes at graduate level for research employees after working hours. A tuition fee of $25 is charged which pays the costs of instruction. A few competent outsiders are admitted to these classes. Universities frequently give credit toward advanced degrees for this work.

Closer contacts are also developing between the experiment stations and the research work in the land grant colleges. Promising students in these colleges are sometimes given fellowships to carry on research at the experiment stations while completing work for advanced degrees. Over 1,000

teachers at these colleges also give part time to experiment station investigations.

The results of the research and experimental work of the department are disseminated by special bulletins and by the Experiment Station Record. Last year 32 special documents were issued and the Record contained 6,408 abstracts reporting the results of research in agriculture and related fields. Each experiment station also issues special leaflets and bulletins—about 1,500 altogether, containing some 40,000 pages, each year. The total number of names on the mailing lists of all the stations is over 850,000. Daily radio broadcasts help disseminate market reports and helpful hints to farmers.

Another effective avenue for dissemination and application of the results of the agricultural research is the Agricultural Extension Service, established under the Smith-Lever Act of 1914, and subsequent acts. A total of some $8,000,000 of federal funds is expended annually in cooperation with the states on the 50-50 basis. The allotment of federal funds to each state is proportioned to rural population. The states are now spending a total of about $15,000,000 for this extension service. The work is administered by a director of extension in each land grant college under supervision of the extension division of the Department of Agriculture in Washington.

The extension service organization consists of 487 state directors, state leaders and district agents, 2,509 county agricultural agents, 1,185 home demonstration agents, 208 4-H clubs agents, 1,107 specialists, and 300 negro extension workers, a total of 5,796, besides radio broadcasters. There are 2,800 agricultural counties to be served.

The pending Capper-Ketcham Bill, if passed, will eventually add about $6,000,000 of federal money a year which must be matched by the states and 80 per cent used only for salaries of extension workers. This will add approximately 3,000 more to the present force of 5,800. They are nominated by the land grant college, accepted by the county concerned, and approved by the Department of Agriculture. Most of them are given federal commissions also. This

gives them the franking privilege for official mail and the advantages of the employees' compensation act.

The primary interest of the Extension Service is to make the rural community a better place in which to live. This may be done: (1) by improving the economic status of rural people, and (2) by broadening their viewpoint in every way. It may be accomplished by encouraging community activities of any sort, economic or social. Any activity that contributes to these ends is fostered by the Extension Service, even though it seems quite afield from extension work in Agriculture or Home Economics.

The educational work of the Bureau of Home Economics in the Department of Agriculture includes both research and the dissemination of information. The research is carried on in the laboratories in Washington, the chief subjects of investigation being at present economics problems of the home, food and nutrition, and textiles and clothing. The attempt is made to emphasize less-developed but potentially valuable phases of these subjects. Particularly in the newer lines of research, the effort is to develop and evaluate methods of investigation and to provide bibliographies and similar helps for other workers. The results of this research and of compilations of suitable data not elsewhere available in popular form are disseminated through the Extension Service by its home demonstration agents and through popular bulletins, press releases, radio talks, and other material prepared in the bureau itself. The office has $160,000 annual appropriation for its own work but no federal funds for distribution to the states for investigations in this field.

The Public Health Service, the Children's Bureau in the Department of Labor, and the Office of Education in the Interior Department are all working in various areas in this field. Three of these four offices are cooperating with the Washington Child Research Center, which was established by a private foundation.

The Bureau of the Budget has recently called conferences of bureaus that seem to duplicate work. As a result, so-called correlation committees have been set up in a number of fields.

FEDERAL BOARD FOR VOCATIONAL EDUCATION

The 50-50 plan of federal cooperation with the states in matters educational was inaugurated by the Smith-Lever Act of 1914. By this Act federal subsidies on the 50-50 plan were granted "To aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same." This purpose shall be accomplished by "giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in several communities, and imparting to such persons information in said subjects through field demonstrations, publications and otherwise."

The Smith-Lever Act of 1914 further directs that "This work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State Agricultural College or colleges receiving the benefit of this Act." In order to check up on use of the federal funds, each college is required to submit to the governor of the state "A full and detailed report of its operations in the direction of extension work as defined in this Act, including a detailed statement of receipts and expenditures from all sources for this purpose, a copy of which report shall be sent to the Secretary of Agriculture and to the Secretary of the Treasury of the United States."

In addition "the treasurer or other officer of the state duly authorized by the laws of the state" to receive and disburse these funds "shall be required to report to the Secretary of Agriculture" each year a detailed financial statement. The Secretary of Agriculture is authorized to withhold federal funds from any state which, in his judgment, is not using the federal funds in accordance with the intention of the Act.

The annual federal appropriation under the Smith-Lever Act is $5,580,000. The entire Act covers two and a half printed pages.

The Smith-Hughes Act of 1917 for promotion of vocational education covers eight pages. It appropriates annually

$7,000,000 of federal funds on the 50-50 principle, not for diffusion of useful information but "for the purpose of cooperating with the states in paying the salaries of teachers, supervisors, and directors of agricultural subjects, and teachers of trade, home economics, and industrial subjects, and in the preparation of teachers of agricultural, trade, industrial and home economics subjects." $200,000 per year is also provided "for the administration of this act and for the purpose of making studies, investigations and reports to aid in the organization and conduct of vocational education."

To receive the benefits of the Smith-Hughes Act, a state must "accept the provision of this act and designate or create a State Board . . . having all necessary power to cooperate, as herein provided, with the Federal Board for Vocational Education." "This State Board shall make an annual report to the Federal Board for Vocational Education," not to the governor or other state official. Sections 8 to 12 covering over two printed pages define detailed conditions which the state plan must meet in order to receive federal funds: for example, "that such schools or classes giving instruction to persons who have not entered upon employment shall require that at least half of the time of such instruction be given to practical work on a useful or productive basis, such instruction to extend over not less than nine months per year and not less than thirty hours per week."

In these five sections of the Act (8 to 12) the phrase "with the approval of the Federal Board for Vocational Education" occurs ten times. In order to use federal funds for part payment of teachers' salaries in state schools, not only must the state plan be approved by the Federal Board, but also teachers who receive federal funds must be those "having the minimum qualifications set up for the state by the State Board with the approval of the Federal Board for Vocational Education." Similarly, the necessary plant and equipment and the amount expended for maintenance shall not be less than those "determined upon by the State Board, with the approval of the Federal Board for Vocational Edu-

cation, as the minimum requirement for such education in schools and classes in the state."

The Smith-Lever Act provides that federal funds be paid to the states semi-annually in advance. By the Smith-Hughes Act federal funds are paid quarterly "as reimbursement for expenditures already incurred."

"The Federal Board for Vocational Education may withhold the allotment of moneys to any state whenever it shall be determined that such moneys are not being expended for the purposes and under the conditions of this Act."

All the states have accepted the provisions of this Act. Two-thirds of them appointed the members of the State Board of Education as members of the State Board of Vocational Education, thereby maintaining unity of control without violating the Smith-Hughes Act. The states are now spending, on the average, $3.00 for every federal dollar. In 1929 there were nearly 900,000 enrolled in federally aided schools giving vocational training and 15,000 in federally aided teacher training institutions.

The Federal Board believes that these federal grants are intended—

1. To stimulate the states to undertake vocational education which the Federal Government believes is necessary to the public welfare.

2. To equalize the inequalities of burden among the states in doing this.

3. To secure for the National Government a reasonable degree of participation in doing this.

4. To establish minimum standards of vocational education.

In order to ascertain the degree to which federal monies have been legally expended the annual audit takes three forms: namely, (1) an audit of the reports sent to the office in Washington; (2) an audit in the office of the State Board; (3) a "service audit," which is made on the basis of information secured by field agents of the Federal Board during the year.

Since 1917, the Federal Board has issued 140 bulletins embodying the results of its studies and reports of conferences

and of special committees. Though the Federal Board has only $200,000 for administration and research, it is authorized in the act to make investigations for purposes of vocational education "in cooperation with or through" the Departments of Agriculture, of Labor, of Commerce or through the Bureau of Education. Some use has been made of this provision. The board also cooperated with voluntary associations. Members of the staff organize and participate in numerous state, regional, and national conferences.

THE AMERICAN VOCATIONAL ASSOCIATION AND THE ASSOCIATION OF STATE DIRECTORS OF VOCATIONAL EDUCATION

"If you can't serve, you can't earn; if you can't earn, you can't buy; and if you can't buy, industry is paralyzed." Since you can't serve without skill, training for vocational skill is essential to national prosperity. Hence federal support for vocational training is justified as insurance for national prosperity.

Those who control the public schools are "academic-minded." They still conceive schooling too much in terms of college entrance requirements. One locality cannot overcome this handicap by itself. Federal stimulation of vocational training is the quickest and most effective method of overcoming it. Speed is necessary because the standards of skilled performance are rising rapidly.

By the Smith-Hughes Act of 1917, federal stimulants are administered in the form of money grants with which to pay part of the salaries of teachers of vocational subjects in public schools and of teacher-trainers in colleges. The federal stimulation is working; the states and local communities now spend on the average $3 for every dollar contributed by the Federal Government. The standards set by the state with the approval of the Federal Board have been helpful in upgrading both the training and the quality of the teachers.

The allocation of the federal funds to local schools is done by the State Board for Vocational Education. In 32 states this board is identical with the State Board for Education. In several states, federal and state funds are so allotted to

local schools that the two funds supplement each other in helping to equalize educational opportunity throughout the state. In Pennsylvania, for example, the combined federal and state aid for teachers of vocational education varies from 20 to 80 per cent of the teachers' salaries.

In one state there are four different boards dealing independently with education—one for general public education, one for vocational education, one for teachers' colleges, and one for state university. Coordination of effort depends on the state superintendent of public instruction, who is ex-officio a member of all four boards. The requirements of the four groups concerned are there considered sufficiently distinct to warrant a special controlling board for each.

It is not possible to give federal aid for vocational training to all public schools. Federal funds are insufficient. The federal act limits aid in full-time schools to instruction of pupils 14 to 18 years of age; i.e., at the high-school level. Two-and-three-teacher high schools cannot let one teacher give full time to vocational training and maintain a balanced program. Small communities usually cannot add an extra high school teacher without diverting funds from the elementary school, which is still regarded as having a priority claim. Wisconsin is experimenting with itinerant teachers to meet this situation.

Friction between federally aided activities in local communities is generally due to local maladjustment that results from the desire of each agency to get credit for any good results. Blame for troubles that is due to local maladjustments is too often laid on the federal offices.

Vocational education will get along faster purely on its merits and not because of the financial bait there is in it. As public support for education in general gets on a more satisfactory basis, the need for special aid for vocational education becomes less.

As wealth piles up in a few financial centers, the Federal Government is bound to take an increasing responsibility for education because it is essential to national prosperity. Such federal aid will take the form of a permanent state sub-

sidy in the interest of equalization, not in the interest of stimulation of some special phase of education. Present federal subsidies are too small to serve for equalization. Larger federal financial support is the basic need.

The program of vocational education has been in operation only 11 years. It has made notable progress in developing effective techniques and in adjusting itself to the school system. Give it time and encouragement. Techniques must be related to larger ends, for example, the mechanics of home management to worthy home membership, the development of specialized skill to responsible citizenship.

To make substantial progress toward these ends, cooperative experiment and investigation are needed. Development, up to the present, has been largely empirical. A relatively small sum spent annually on research by the federal offices may produce large results without danger either of federal control or of limitation of local responsibility.

THE SUPREME COUNCIL 33°, ANCIENT AND ACCEPTED SCOTTISH RITE OF FREEMASONRY, SOUTHERN JURISDICTION

The basis for the continuous campaign for Federal participation in education conducted by the Scottish Rite Masons is to be found in the resolutions passed by the Supreme Council. The essential policies enunciated in their resolutions are incorporated in their public declaration, which is printed regularly in their official bulletin. It is as follows:

1. A Federal Department of Education with a Secretary in the President's Cabinet, and federal aid for public school purposes, under the absolute control of the states.
2. A national university at Washington, supported by the Government.
3. The compulsory use of English as the language of instruction in the grammar grades.
4. Adequate provision for the education of the alien populations, not only in cultural and vocational subjects, but especially in the principles of American institutions and popular sovereignty.

5. The entire separation of Church and State and opposition to every attempt to appropriate public moneys, directly or indirectly, for the support of sectarian institutions.

6. The American public school, non-partisan, non-sectarian, efficient, democratic, for all the children of all the people; equal educational opportunities for all.

7. The inculcation of patriotism, love of the flag, respect for law, order and undying loyalty to constitutional government.

The Council adopted its first resolution in 1920. This was reaffirmed in 1923 and 1925. They have favored the Smith-Towner bill and have been generally favorable to the previously announced policies of the National Education Association. With them, the idea of federal financial aid for public school purposes in the states and the establishment of a Federal Department of Education with a Secretary in the President's Cabinet are entirely divorced from the policy of any control by the Federal Government. They believe in the absolute control of the states, in matters of education. They are opposed to any form of bureaucratic supervision from the national capital.

The national importance of education in our domestic civilization is such as to require a dignified recognition of the fact. It is basic to our form of government. More than half of our public taxes are spent in this form of national defense and welfare. The Federal Government can conduct research and experimentation in education where the local communities and the states can not. The latter have not the money, nor can they recruit the rare abilities required for this type of scientific aid to education everywhere. The local communities can experiment to fit their local conditions, but the more fundamental and the more widely extended investigations are beyond their reach.

It will give education the dignity of its actually important national function if it is represented by a Secretary in the Cabinet. Education is as important as Agriculture, Commerce and Labor. Cabinet memberships do not imply the control of the activities they represent. Aid to them through inquiry, the dissemination of information, and the

provision of a spokesman in the councils where national policy is made are the chief purposes. Education is too often forgotten when great issues are being considered. There is now no one of sufficient standing in the Federal Government to advise whether an educational bill before Congress incorporates a sound public and educational policy. For this reason our federal policy has been inconsistent, partial, and without vision. The President's approval and veto are part of the legislative procedure and he has no educational adviser in the Cabinet to aid him, or to speak for coordination in the administration of the varied educational activities the government is now conducting, or to point out effects educationally of the other activities of the Government.

Other great governments have ministers of education. We alone have not. Popular education occupies a more important place with us than with them. Opposition to increasing the size of the Cabinet is not sound. With government growing more complex, the President needs more aid. The Secretary of Education could, if necessary, be a cabinet officer, without portfolio of authority—to advise rather than manage or administer. Ministers without portfolio are used by other national governments.

The first president of the nation, George Washington, left a fund to establish a national university. Nothing has ever been done about it. The scientific facilities of Washington are unparalleled, but they are unorganized for ready use. Sentiment and efficiency could come together in some plan for a great establishment which would not duplicate or interfere with existing facilities.

A poll of Masonic membership in and out of their own Scottish Rite body and jurisdiction indicates an overwhelming belief in the kind of federal educational policy put forth by the Supreme Council. Only political expediency, fear of federal control, or un-American opposition prevents some effective action on the subject. Meanwhile, other forms of federal participation in education are being adopted which foster just the kind of federal control which the Scottish Rite Council does not favor.

INDIAN EDUCATION

In their statement the representatives of the Indian Office related that there are over 300,000 Indians in the United States, over one-third of whom live in Oklahoma. The Indian Service is administered by a central office in Washington, and 83 agencies. The agencies have responsibilities for both reservation and non-reservation Indians.

Of the 68,000 Indian children going to school, 50 per cent attend the regular public schools, the Government paying for their tuition, 19 per cent attend boarding schools located on reservations, 17 per cent non-reservation boarding schools, 7 per cent mission and private schools, and 7 per cent government day schools. There are 49 reservation boarding schools and 19 non-reservation boarding schools. Eight of the latter have senior high schools (three of these begin with the fourth grade). The remainder and all of the reservation boarding schools begin with the first grade and do not go beyond the sixth grade except that in two instances a seventh grade is included. All of the senior high schools offer household, agricultural, and mechanic arts. Certain of them offer courses in the trades; one of them also in teacher training and commercial subjects.

The points in the discussion may be grouped under three heads:

1. The Indian school system.
2. The objectives of the entire Indian policy.
3. The administrational organization of the Indian Service.

Salaries of teachers are considerably lower than in the public schools. The qualifications of teachers are consequently lower. It is not practicable for them to have contacts with teachers in the public schools, not only because of isolation in many instances, but also because of a ruling of the Comptroller of the Treasury that attendance upon a teachers' convention must be counted on their annual leave and taken at their own expense. School equipment and supplies are insufficient. Schools differing widely from each other in pupil needs and environment, pursue much the same course of study, which is of the disciplinary and formal type, much like that of the less progressive public schools. The methods

of teaching almost universally seek the acquirement of knowledge rather than the development of the individual.

The boarding schools are badly overcrowded and frequently unsanitary. The recent survey also revealed the fact that food rations supplied by the Government are deficient for the normal health standards.

The development of the community life of the Indians in isolated reservation schools does not seem to be an objective of the education branch of the Service. Neither do the day schools and the reservation schools in close contact with the whole civilization seem to recognize social objectives in an effective fashion. There are no visiting teachers in the Indian school service. The non-reservation boarding schools seem to be consciously governed by the purpose of preparing Indian children for a place in the American civilization of today, irrespective of the antecedents and probable future of the individual.

The development of vocational education of the type suitable to Indians has been begun but not developed far except in certain non-reservation boarding schools. It has been found feasible within the past few months to invite the participation of the Extension Service of the Department of Agriculture and the Public Health Service to cooperate with the schools. Assistance from the Federal Board for Vocational Education is contemplated. There are vocational opportunities for Indians in certain enterprises carried on on the reservations, such as in sawmills.

There are certain administrative difficulties involved in the attendance of Indian children at public schools. They involve the matter of admission, the non-taxation of Indian lands, perhaps in some instances rented to white men with children, the migratory habits of the Indians, who leave the school for uncertain periods and then deprive the school district of the tuition fees from the Government after the school teacher has been contracted with and the supplies purchased.

The objectives in dealing with the Indians in the past have concerned his property, his conduct, and the education of the individual Indian. The first named has been given first importance. The educational objectives contemplated have

been rather vague but in their general import have been those of enabling each individual to get on in some fashion in the white civilization. The advancement of the social group through successive stages in such a way as to conserve the best in the Indian civilization and to make all the Indians contribute their best to white civilization has not been in mind.

The central office in Washington is composed of the following nine divisions: Administrative, Finance, Forestry, Inspection, Irrigation, Land, Medical, Probate and Purchase.

Education is one of three sections of the Administrative Division. Similarly in the field the schools are subordinate to the administrative agency offices that deal with property and legal questions.

The system of regional offices does not obtain in the Indian Service. Administration of all the varied conditions throughout the many widely scattered agencies is directed from the central bureau in Washington.

It is thought that the Indians of California have advanced to such a stage of civilization and have had such long and constant contact with the whites that the administration of their affairs can be turned over to the state. Secretary Wilbur has advocated this change which has been proposed by the Indian Defense League of California—a society of whites interested in the welfare of the Indians.

While cooperative efforts have been entered upon with the Extension and the Public Health Office, none have been attempted with the Office of Education, which has in charge, in addition to its regular education functions, the education of the native of Alaska, a series already resembling that of the Indian Office. According to the press reports, Secretary Wilbur has proposed that the Indian schools be transferred to the Office of Education.

THE ASSOCIATION OF LAND GRANT COLLEGES AND UNIVERSITIES

The topics discussed in this conference were largely the same as those considered in the conferences with the Department of Agriculture and with the Federal Board for Vocational Education. Summaries of these conferences have

already been distributed. Only the additional significant evidence presented in this conference is here recorded.

The fundamental justification for all forms of federal aid to Agriculture lies in the fact that an adequate food supply is the ultimate unescapable basis of national existence.

In the field of education, the federal aid to agricultural education at present consists of the following:

1. The original grants of public land under the Morrill Act of 1862.

2. An annual subsidy of $50,000 per year to each state for the Land Grant College under the provisions of the second Morrill Act (1890) and the Nelson Act (1907).

3. An annual federal subsidy of $90,000 per year to each state for the support of the agricultural experiment station research under the terms of the Hatch Act (1887), the Adams Act (1906) and the Purnell Act (1925).

All of these grants are outright grants without requirement of matching by the states on the 50-50 plan.

4. Grants under the Smith-Lever Act of 1914 and the Capper-Ketcham Act of 1928 by which a total federal aid of over $7,000,000 a year is distributed to the states to be expended by the Land Grant Colleges for agricultural extension service.

These funds must be matched by the states. The Land Grant College is designated in the Act as the state agency to administer this enterprise. The Secretary of the Interior is responsible for the supervision of the Morrill and the Nelson grants and the Secretary of Agriculture is responsible for the supervision of the other grants.

5. In addition to these, the Smith-Hughes Act of 1917 supplies federal aid for vocational agriculture in secondary schools under supervision of the Federal Board for Vocational Education. This work is given not only in all-day classes, but also in part-time and evening classes, which latter may be attended by adults.

As the two systems of agricultural instruction established respectively under the Smith-Lever and the Smith-Hughes Acts may reach the same people for the same purpose, a memorandum of understanding has been agreed to by the two federal agencies involved defining their respective fields

of activity so as to avoid duplication and encourage cooperation.

Cases were cited in which states found difficulty in increasing state funds to match increasing federal funds for extension service. A study was cited to show that the rapid increase of the Smith-Lever aid did for a period actually decrease state appropriations for the experiment station work. States cannot always secure a sufficient increase in appropriations to match increase in federal grants. If they would receive the full federal grant, they must therefore withdraw funds from other work and transfer these funds to the work required by the federal appropriation.

The research staff of the experiment stations now numbers about 3,000 working at some 7,000 projects. Cases were cited showing how the rapid increase in federal appropriations under the Purnell Act caused difficulty in recruiting enough competent research men and women to fill the positions created by the federal grants. There was a tendency to fill these vacancies with a mediocre staff. With the cooperation of the Social Science Research Council, progress is being made in training competent investigators in the field of economics and social science as contemplated in the Purnell Act.

It was admitted that the Land Grant Colleges do not utilize scientific talent and services available either in other state supported institutions or in privately supported institutions. The Federal Department of Agriculture does utilize, to some extent, expert talent outside of the Federal Department and the Land Grant Colleges.

Conferences of State Directors of Extension are held often. These conferences tend to bring pressure to bear on Land Grant Colleges to expand the Extension Service. The field agents of the Extension Service within a state also hold state conferences and lately have shown a disposition to use pressure from their constituencies to secure favorable action on their plans from the Land Grant Colleges.

Since the conference, the Committee has studied the historical background of the Land Grant College movement and particularly Dr. A. C. True's admirable History of Agricul-

tural Extension Work. The following additional evidence is submitted for the information of all concerned.

* * *

In the early days of the Republic, the population was 90 per cent agricultural. In large measure each community raised its own food. Agriculture was a local problem. As the industrial revolution advanced, the percentage of non-farmers in the population steadily increased, necessitating increased production per farmer to insure enough food for all.

By 1820, the percentage of agricultural population had fallen to 83. Many volunteer agricultural organizations had sprung up in response to the demand for better methods of agricultural production to meet the increasing need for food for others than agricultural workers. In 1850, these volunteer organizations began to develop Farmers' Institutes to help train the farmer to better production methods. These institutes soon began to receive state support.

In 1862, when agricultural population was about 50 per cent of the total, the Federal Government passed the Morrill Land Grant Act for colleges of agriculture and mechanic arts and also established a Bureau of Agriculture in the Department of the Interior. These agencies cooperated with the voluntary organizations in developing Farmers' Institutes and other means of helping farmers produce more.

By 1870, the percentage of agricultural population had fallen to 40 per cent. Then the Agricultural Experiment Stations were established (1887), the Department of Agriculture was created (1889), and the Morrill Act (second, 1890) added a direct money grant to support the Land Grant colleges. This set up was given further federal support by the Adams Act (1906) for experiment station work, and the Nelson Act (1907) for further financial support of Land Grant Colleges. All of this federal aid was given without requirement for matching on the 50-50 principle.

In 1910, the percentage of agricultural population had fallen to 33 per cent. The volunteer associations, stimulated by the Land Grant College instruction and research, were becoming more active. In 1902, the states spent $163,000 on 2,800 Farmers' Institutes with a total attendance of

820,000. In 1914, the states spent $450,000 on 9,000 institutes with a total attendance of 3,000,000.

The chief justifications for the Smith-Lever Act of 1914 as urged by its proponents before its passage (1909-14) were:

1. That it gives the program for agricultural extension a national significance at once.
2. That it speeds up the starting of the enterprise in reluctant states.
3. That it equalizes by taking money from prosperous communities to build up the poorer.
4. That it prevents the state from omitting important phases of the work.
5. That it divides responsibility for the work between the state and the Federal Government, thereby giving a measure of national direction.
6. That it taxes all the people for the development of agriculture.
7. That federal taxation is indirect and therefore less noticeable.
8. That it completes the circle of national aid to Land Grant Colleges on principles recognized in the Morrill Act.

The effect of the Smith-Lever Act on Farmers' Institutes is thus described by Dr. A. C. True in his history of Agricultural Extension Work (page 41):

"The passage of the Smith-Lever Extension Act of May 8, 1914, and its acceptance by all the states radically changed the status of farmers' institutes. The federal authorities charged with the administration of that act discouraged the use of Smith-Lever funds for the ordinary type of farmers' institutes. The agricultural colleges receiving the benefits of that act withdrew from the institutes features which had definite educational value, such as field demonstrations, movable schools, women's institutes, and boys' and girls' clubs. State legislatures, having undertaken to support the Smith-Lever work, were not inclined to continue substantial financial support to the institutes."

The Smith-Lever Act of 1914 did not "complete the circle of national aid to Land Grant Colleges." In 1925, the Purnell Act extended federal aid to pay the necessary expenses of conducting investigations or making experiments which

have for their purpose the development and improvement of the rural home and rural life.

There is now pending a bill (S. 696; H.R. 7831) sponsored by the Land Grant College Association to give federal grants amounting ultimately to $50,000 per year to each state for an engineering experiment station at the Land Grant College. It is claimed that this is needed to extend research into the field of mechanic arts, in conformity with the phrase "agriculture and mechanic arts" in the original Morrill Act.

The president of the Land Grant College Association last year predicted that federal aid would soon be necessary also for a "mechanic arts extension service" under supervision of the Department of Agriculture to carry the results of engineering experiment station research to industrial workers in their homes, Then the Land Grant Colleges could accomplish "all instead of only a part of the national purposes for which they were created." They could then also help improve "the homes and the lives of the people of the mechanic arts industries."

Since 1900, the United States has exported over 140,000,000 bushels of wheat annually. In 1927, the amount exported was 220,000,000 bushels.

The Federal Farm Board is now struggling with agriculture overproduction in spite of the fact that the percentage of agricultural population has now fallen to 25 per cent. Federal aid of $500,000,000 has been authorized to help the board cope with this overproduction.

About two-thirds of the federal income is now derived from direct income taxes. These are more "noticeable" than were the indirect federal taxes of 1914. The more the Federal Government takes in income taxes from the states, the less the states can collect for their own purposes.

There are, at present, 5,800 field agents of the Department of Agriculture operating in the states in cooperative extension work under the Smith-Lever law and its extensions. The pending Capper-Ketcham bill would add ultimately about 3,000 more for this work. Connecticut already has three county workers in every county and five in some.

In 1790, there were 50 employees in the executive department of the Federal Government for a total population of

4,000,000. The ratio is one federal employee to 80,000 population. In 1930, there are 590,000 civil employees of the Federal Government for 120,000,000 population. The ratio is one federal employee to 200 population. Since there are about 45,000,000 wage earners, this means one federal employee to 76 wage earners.

NATIONAL CATHOLIC EDUCATIONAL ASSOCIATION

Catholic education in the United States includes elementary (7,664), and secondary schools (2,158), normal schools (80), colleges and universities (159), and professional seminaries—including special preparatory schools therefor (162). There are 82,086 instructors (9,582 lay).

Catholic educational institutions care for only one-half of their people, but the number is increasing every year—last year about 90,000. Their estimated annual saving to the public school systems is $127,878,100 in elementary education and $34,917,720 in secondary education. Their yearly expenditure for education is $48,248,353. They receive no support from the state.

They are not directly supervised by the state authority. In some areas there is some indirect supervision. They operate under charter. They usually follow the standards of state authorities over public education and of the standardizing school associations offering membership and accreditation. In 1926, 65 per cent were accredited. In New York, their students take the Regents' examinations. The teaching sisters usually try to qualify for the state certificates. The National Catholic Educational Association is a non-official body, not under the hierarchy. It is a voluntary teachers' association and accredits as do other voluntaristic educational bodies.

Their reasons for establishing separate schools under a religious regimen issue from the philosophy of the Catholic religion itself. As the ultimate aim of life is union with God through striving, everything in the child's environment is an influence—church, home, school, etc. It is not instruction alone which is educational but the whole life activity. Any unity in practice is due to common belief.

The Catholic educational system is not a national system.

It is decentralized. Management is through the dioceses under the bishops (105). Generally, school support is by parishes, though at different times and places some aid has to be given by wider units, such as the diocese. Some religious orders or communities have schools not directly under the bishops. School attendance is not limited to Catholics.

In expressing their attitude on the relation of the Federal Government to education, they are expressing such opinion as is common among their educators, not an official church attitude.

Having a decentralized school system of their own, they are, for the same reasons as other educators who favor such a system, opposed to a highly centralized system of educational control and management. It interferes with necessary local adjustment and experimentation. They are opposed to any legislation which tends to increase centralized federal control. They do not like its effects. There was no objection to schools maintained for apparent national purposes of the Federal Government, such as the military, naval, and other schools.

They heartily favor the Federal Government engaging in educational research and dissemination of the same to educators and the public. Because of the general tendency of control to follow financial aid, their attitude is one of caution, but they are not opposed to federal financial aid to equalize educational opportunity among the states, if it is really needed, and federal control is divorced from the idea of aid.

The changing conditions in American economic life and American taxation, which have tended to create wide diversity between local wealth in the states and the number of children to be educated, are comparatively recent, and the federal policies now proposed to alleviate conditions of wide variation in the support of state schools has not been discussed.

If federal aid is to be granted, it should be turned over to the states for their exclusive management.

Some discussion followed on the application of such monies. If federal funds were not to be merged with state funds for education, it seemed safer to utilize federal monies for externa (elements like teachers' salaries, buildings, health inspection,

etc., not directly affecting the quality of educative process) and not for interna (elements such as teacher training, supervision, textbooks, which directly influence educational policy and result).

This would minimize the danger of any majority in control of the government utilizing the schools as a means of propaganda with plastic youth, as has been the case in Bulgaria, Russia, and other places.

If federal money is not turned over to the states for their own unrestricted use for educational purposes, and we should continue to give aid, as now, for certain special purposes only, it would be less objectionable the fewer people such influencing aid touched and the less fundamental the type of education involved. Helping the deaf, dumb, and blind, the negroes, and the indigenous races (Indians) would be less dangerous in inducing general federal control. The same might be said of special vocational education as opposed to general education. For the same reason, aid to secondary education might seem less likely to invoke wide control than aid to elementary education. So transient aid for stimulation, or to meet emergencies, is less likely to lead to permanent federal control than permanently continuous grants.

The agency set up to deal with education in the Federal Government should be determined by functions to be performed. The name "bureau" usually implies bureaucratic administration to which there is natural opposition. No federal control or supervision of educational methods is desired.

Mr. Davidson, speaking of the legislative attitude of the N. E. A., said that four years ago the Association specifically modified what seemed to be implied in its past policy. Its declarations now specifically favor federal aid but oppose federal control. The Secretary of Education it desires so as to gain an influential voice in the Cabinet similar to that of the Secretaries of Agriculture, Labor and Commerce, but completely divorced from the administrative powers of the other types of secretaries. It is due to lack of counsel from a Secretary of Education, representative of the educational profession at large, that we have continually increased federal supervision of certain state educational activities

which the Federal Government had aided and fostered. On the other hand, federal control seems to have increased with successive congressional acts, without a Department of Education.

The attitude of the representatives present concerning making the Office of Education a department seemed one of general caution in the fear that control might follow enlargement of official position as it tends to follow financial grants. Caution, rather than opposition, was the characteristic attitude.

THE AMERICAN FEDERATION OF LABOR

The representatives believed that there was danger in centralization of educational control in the Federal Government. They felt that education should be decentralized as much as possible, consistent with providing approximate equality of opportunity for everybody regardless of geographical location or economic and social position.

They believed in federal aid to the backward community, but recognized the danger that the Federal Government might use aid to gain control of the educational policy.

Apprehension was expressed regarding the manner in which the Smith-Hughes Act was operating. Labor had been favorable to the purposes of the Act. Aid to the states was favored, but labor is opposed to specific supervision of the type that seemed to be called for by the provisions and interpretations of the Act. Any federal influence which specified the number of hours or minutes required for a given study was not favored. The locality should determine the form or type of teaching to be pursued.

Local self-government and experimentation is absolutely necessary particularly in public education. In the right of the federal authority to veto state plans of cooperation, there lurks a danger in the direction of federal control. Negative power of the veto may become positive power in reality. There is always danger of standardization stifling an experiment. There should be no outside interference.

Central professional associations engaged in standardizing and accrediting should be distrusted for similar reasons. They were, however, less dangerous for they usually operated on a regional rather than a nation-wide basis, and were more

directly responsive to the criticisms of those engaged in teaching, and more amenable to modification than political crystallizations in law and official regulation. They are constantly reconstructing their standards and modes of measuring effectiveness. They are now taking their hands off the Junior High School by accepting a three instead of a four-year rating for college entrance.

There was no opposition to such standardization of things as was achieved through the Department of Commerce and the Bureau of Standards. But there was grave objection to standardizing the treatment of human beings.

The American Federation of Labor has definitely opposed the dual system of education once proposed by the manufacturers of Illinois—one control for general education and another for vocational training. They believe in a unitary or integrated system of school management.

Attention was called to the dual system of boards set up in the states by the Smith-Hughes Act, and the natural disposition of the states to ameliorate this dualism, by placing the same personnel on both boards in the large majority of the states. This was the American social spirit resisting an intrusion on its national tradition.

The labor representatives called attention to the influence of the machine in this period of mass production. Men were being thrown out of work for varying periods of time until they could be re-absorbed successfully in new occupations. Thus far, such new industries meeting new wants, such as the making of automobiles and radios, have saved American prosperity. We need more such. Whether all labor could finally be absorbed successfully was still a matter of apprehension.

It was pointed out that in Buffalo most of the young people unemployed were those who had left school early. Such a fact calls for a type and extent of education which fosters qualities of resourcefulness, adaptability, and basic skills. It changes the emphasis in education.

If work becomes scarce, fewer days of work and fewer hours per day will influence education, calling for kinds of training that will serve a worthy use of leisure.

Through the increase of machine production, labor is in-

creasingly dislocated and compelled to move from highly skilled employment to less skilled or slightly skilled occupations, where one becomes merely a machine tender or a single-function man, as when the worker continually screws on a nut and nothing more.

Products, methods and materials of work change. Glass blowers and printers are now machine tenders. Cigars are made by machines. Telegraphers use sending and receiving machines. Telephones become automatic. Much that once required long apprenticeship can be mastered in from one hour to one week of training. Carpenters now work more with steel and compositions and less with wood. Machines make tools and, again, machines make tool-making machines. Mergers, as well as mechanical work-methods, cause unemployment.

The worth of the traditional type of trade-training comes into serious question. Much research is required to keep track of rapidly changing trends. To know what kinds of conditions are to control both life and labor, we must conduct continuous inquiries. Education has to be as flexible as our modern life, and as adjustable. Foresight is needed to anticipate tomorrow's conditions.

The Federal Government may serve best through much research on these problems of industry and education. Research, not regulation, is what is needed. We have to know what is going on, what is about to happen, how we are to train for changed conditions in life and work. Federal aid for research is to be encouraged and findings widely disseminated.

The United States Department of Agriculture spends approximately $30,000,000 a year for research in agriculture. There should be more research in industry. The $200,000 spent in research for the purposes of vocational education is not adequate. In this respect, the Smith-Lever work is in a more favorable position than the Smith-Hughes work. More needs to be spent on all lines of investigation connected with education.

Vocational education, especially, needs basic investigations for its guidance in this troublesome period for workers. Those who had left school should be studied as well as those

now in school. The compulsory school age and continuation schools need investigation in terms of our present and advancing situation. Too many children use the continuation schools to make up defects in their elementary education, instead of preparing themselves in interest and capacity for genuine adult education, which is to serve them throughout life.

More vocational schools are needed of the sort that will really develop all the talents of the working class. Many parents, and still more employers, are opposed to general cultural training for life, leisure, and adaptability to changing work. Industrial education was contrasted with the broadening program of the U. S. Department of Agriculture which, through the extension service of the states, trained for a life as well as for a work. Our present accrediting standards, too largely academic, tend to lower the social prestige of vocational courses in the high school and to leave educational and vocational guidance without the large significance it deserves. Comparative studies as to cost and inefficiency of basic elementary education, under the work-study-play plan and in private progressive schools, should be made.

Research and its dissemination is a better form of stimulation than special financial aid and control by the Federal Government. Equalizing of opportunity is best served by federal aid, properly distributed to the several states; all control of teaching processes and standards of equipment and achievement should be left to the states. Educational standardization is not a proper function of the Federal Government. The Federal Government need not go beyond the determination of the one fact that federal monies have been expended legitimately for the function or central purpose of a given act. This was characteristic of early federal grants-in-aid of education in the states. The old policy should be restored.

Attention was called to the fact that labor was supposed to have a representative on the Federal Board for Vocational Education. The representatives did not regard themselves as having a spokesman there for the expression of the views of the American Federation of Labor.

The propriety of the Federal Government's establishment,

maintenance, and support of schools for military training for its own purpose of national defense, such as the military and naval academies, was conceded. The Federation has approved the policy of maintaining Citizens' Army Training Camps, for this is not teaching war. It has not officially expressed its attitude on military training in the high schools and universities. Generally speaking, there would be more opposition to military training in high schools than in colleges; to compulsory military training than to voluntary election. The American Federation of Teachers are definitely opposed to compulsory military training in any public institution and to all military training in the high schools.

THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES

Attention was called to the fact that the Federal Government was drifting into new policies that were gradually changing our whole idea of the government and its relations to local communities and to people.

Lack of mention of education in the constitution has, in the American mind, long carried the implication that this function was left to the states. In the beginning, grants of land were made to the states with the idea of providing an endowment, to see that education was carried into the new territories then being settled. It was an attempt to guarantee that American civilization should follow the pioneer into the new lands.

Later, the aid changed its form from land endowments to money grants for annual operation. With the coming of aid for annual operation, the federal agencies constantly tended to increase their determining influence on local management of education.

In one instance federal acts and regulations of the agency charged with the administration of the act have actually brought about the prescription of a minimum number of minutes to be assigned to a given subject in the time schedule of local high schools. Other disturbances of local initiative in adjustment and experimentation have occurred.

In other instances, state plans for the distribution of educational functions based on long accepted policy and development, or set up by the state legislature itself through acts

based on careful educational surveys of the state, have been disturbed by federal acts offering aid which, at the same time, designated one particular type of state institution to manage the work in which the Federal Government is interested. Wasteful duplications which states have tried to avoid have been created through the money influence of federal acts. Subventions to agricultural economics and home economics were cited. The proposal to establish engineering experiment stations would have the same kind of effect. It was objected that congressional bills on educational subjects were not referred by Congress to the Committees on Education, hence their educational policies were not properly criticized and discussed by officials responsible for education.

In the twenty states where the state universities are separate from the land grant colleges, these institutions suffer a large political disability by virtue of the widely distributed federal activities in the state managed by another unit of the higher school system. There are about 5,800 of these county agents in all the states. A bill now before Congress will add about 3,000 more. There is no cooperation between such institutions when there could be. Public institutions, being dependent on public appreciation to get public support, tend not to share services with institutions competing in the same legislature for financial aid.

The attitude of legislatures toward additional appropriations for the state higher institutions at the present time is not highly favorable. More than thirty states are trying to readjust their tax systems under current pressures to raise equitably more needed funds for state purposes. A president of a land grant college was quoted to the effect that the money needed to match new proposed appropriations of the Federal Government might mean that such local additions of funds would have to be taken largely from potential appropriations needed for the maintenance of the university as a whole. General skepticism as to the soundness of the principle of local matching of federal monies was expressed. This seemed to be a forced matching of money which originally came from the states. Fifty-eight per cent of the whole federal income is derived from the U. S. income tax, which is a levy upon the wealth of the states. Taxing

these resources, previously not taxed by the Federal Government, reduces the amount of money that might be raised by the states through a state income tax.

The Federal Government, in the case of the inheritance taxes, allows as high as 80 per cent of certain inheritance taxes to be returned to the state for its own general or designated purposes, without any federal provision as to its use, or duplication. The money matching principle of the Smith-Lever and Smith-Hughes Acts is in sharp contrast.

The present unequal power of the states to educate their children through the provision of a reasonable approximate equality of opportunity, was regarded as a serious situation. This condition allowed to drift is likely to become worse. The Federal Government, with its income tax, has, for practical purposes, preempted part of the money that state governments might have used. Larger units of business operation with their mergers, chains, and branches are centralizing wealth in large cities in a few states. Wide distribution of stockholders is only a slight alleviation of the difficulty. If all American children are to have a fair chance, it will be necessary for the Federal Government to make grants-in-aid of education to the states. The method of distribution adopted would have to take into account the number of children of school age, and possibly, also, the wealth or taxable income of the states. The educational purposes to which this money should be allotted should be no concern whatever of the Federal Government, which should not exercise control or supervision of any sort. It should merely determine whether the money has been legitimately used for education. Any policy inconsistent with this general policy of federal aid for education in the states was not favored. The states should be left free to manage their own affairs, to equalize within the states, to stimulate one type or level of education as the states sense their own needs.

The federal policy has changed in another respect. For the first seventy years, its interest in education was general and humanistic. General enlightenment, without special selection or exclusion of subjects, was its aim. During the past sixty-eight years, it has emphasized training for material ends rather than for general human purposes. Researches in

the humanities and their applications are just as important as those in the physical and biological sciences and their technologies. They may prove more important. Just at the moment, crime and other maladjustments are prominent. In one reformatory there are 1,000 persons under twenty years of age, chiefly convicted of crimes against property. Little is now spent in the United States for research in the social sciences and their educational applications. Two hundred million dollars have been spent in chemical research alone. There is a need to have new knowledge about people as well as about things.

Military training in the state universities under the auspices of the War Department seemed to be freeing itself of irritations conspicuous in the past. It was held that collegiate military training was always under the final control of the university and that the War Department merely provided assistance as an act of cooperation, without power to regulate. The question as to whether the Morrill Act required compulsory military training of all students or merely required the maintenance of a department offering courses was raised. A decision from the Attorney General is pending.

The relative efficacy of voluntary and compulsory training in the first two college years was raised. No definite opinion was offered due to a lack of data and interpretative comparison of institutions following the two different systems.

The general opinion was not favorable to the Junior R. O. T. C. in secondary schools. This placement did not seem to serve the main purposes of the Military Defense Act.

The various attempts by government and private foundations to make the extraordinary facilities of Washington available to scholars were reviewed. All were agreed that the facilities should be made available by some agency or organization favorable to the working needs of advanced students. It was thought by most of those present that it should be a central agency for cooperation in research, rather than a teaching institution giving course credits and degrees.

The discussion covered eight types of proposals or actual activities:

1. George Washington's idea of a national university.

2. Previous and present proposed bills for a national university.

3. The work of various private and more or less specialized research foundations now operating in Washington.

4. The maintenance of after-hour graduate schools by the United States Bureau of Standards and the United States Department of Agriculture.

5. The recent establishment of chairs in various subjects in Congressional Library.

6. The proposal that there should be established a National Land Grant Institute.

7. The suggestion that the University of Maryland should be the official land grant college for the District of Columbia.

8. The suggestion to establish a mere clearing house agency for research students largely on the lines of the American University Unions in Europe.

THE AMERICAN HOME ECONOMICS ASSOCIATION

"The function of home economics is the development and promotion of standards of home living that will be useful and satisfying to the individual and profitable to society.

"Home is the place of abode of persons bound together by ties of affection; a place where affection of parents for each other, for their children, and among all members of the family is nurtured and enjoyed; where genuine personal hospitality is extended; where the immature are protected and guarded. A place where one may have rest, privacy, and a sense of security; where one may enjoy his individual kind of recreation and share it with others. A place where where one may keep his treasures; where one may satisfy his individual tastes; where fundamental culture, consisting of customs, language, courtesies and traditions, is conserved and passed on to the young. A place where regard for others, loyalty, honesty and other worthy character traits are cultivated and enjoyed—a haven, a sanctuary and a source of inspiration."

Food, clothing, housing, are still the material necessities of living. The inspired home is built on this material basis. Its inspiration depends on the skill and art with which the material basis is molded.

Agricultural research for many years has been focused on improving production to insure an adequate food supply.

Enough food does not solve the home problem. People must have not only enough food but a nourishing, palatable, balanced diet.

Similarly, people are not satisfied with just clothing. They want comfortable, attractive clothing adapted to all varieties of climate.

Home economics research, therefore, focuses attention not on quantitative production but on quality of consumption. Intelligent consumption is its basic aim.

For these reasons home economics research consists with regard to food in scientific study of vitamin content of all varieties in all type of food, both as it exists in raw foods and as it is affected by different types of storage and cooking. The balanced and nourishing diet is now calculated in terms of vitamins instead of in terms of calories as was done a few years ago. About half of the projects in home economics under the Purnell Act concern themselves with vitamins.

A considerable number of projects deal with problems of clothing, in an effort to determine which materials—cotton, silk, wool, and rayon— are most appropriate for fabrics for different types of home use under varying conditions. Which type of manufacture yields fabrics that are permeable to sunlight but are heat insulators? What is their relative flexibility under varying conditions and what is the reliability of individual judgment of fabrics as to durability and adaptation to particular uses?

Similarly, with regard to household equipment, there are projects to determine which type of cookers gives most cooking per dollar, what types and arrangement of conditions require least time per meal served, and so on. The basic idea is to reduce avoidable wastes in operating the material mechanics of life in order that energy may go into the higher functions of the home.

Research in Home Economics has its headquarters in the Bureau of Home Economics in the Department of Agriculture which operates on an annual appropriation of $160,000. Federal support for home economics researches in the experiment stations on Purnell funds amounts to $287,000, out of a total of $2,880,000. This is half of the amount that might be spent.

The Federal Board for Vocational Education gives federal aid to Home Economics work in public schools. Out of about 2,000,000 girls receiving home economics instruction in public schools, nearly 155,000 are in courses that receive support from the Federal Board. The federal support under the Federal Board for home economics is $481,000. State and local support for this purpose is $3,900,000.

Complementary to the research activities of the Bureau of Home Economics and the State Experiment Stations are the activities of the Extension Service. Approximately $6,000,000 was spent in 1928 by federal, state and local agencies for Home Economics extension, as compared with $17,000,000 for agricultural extension. On October 1, 1929, there were 1,304 county and 138 state appointees in Home Economics extension, approximately one-half of the number of county agents and state leaders.

Besides the Department of Agriculture and the independent Federal Board for Vocational Education, there are three other federal services that operate in the broad field of Home Economics. Although their financial resources for field work are slight, and their research contributions relatively restricted, they do furnish information which is important and valuable. These services are the Children's Bureau of the Department of Labor which administers the federal aid under the Sheppard-Towner Maternity Act, and is interested in all matters pertaining to the welfare of children and child life; the Public Health Service which confines its attention largely to physical growth; and the Bureau of Education which gathers and interprets such statistical data as throw light on the present status of the school work, furnishes information, and participates in occasional surveys. But one specialist and a part-time stenographer and clerk are designated for this work.

The Association desires in the Office of Education a staff of specialists sufficiently able and numerous to deal competently with its problems of home economics, at all age levels and for all groups. This staff should be utilized not only for extensive research but also for participation in national, regional, and state conferences and in surveys.

The effects of the standards imposed by the Federal Board

for Vocational Education in the training of teachers, in the time devoted to vocational work, in the segregation of vocational from non-vocational classes and in the separation of home economics teachers into two groups are considered harmful. They favor larger state control of policies, more extended research by the Federal Board, and closer cooperation by it with all agencies promoting home economics education on all levels.

Closer cooperation of the Bureau of Home Economics with other research agencies in home economics, more frequent contacts with the field, increased funds for more extension research, a more experienced staff and a well-organized program for future developments are considered essential for a well-rounded and efficient program for the bureau.

In some land grant colleges, the administration of home economics research is so separated from that of the Home Economics Departments that both research and instruction lose in effectiveness; the esprit de corps of the staff is also adversely affected thereby. Allocation of research funds by those unfamiliar with the possibilities and significance of home economics research is a prominent cause. A unification of the program in each state such as that prevailing in agriculture is desired.

It is felt that the Extension Service is failing to reach many homes, that its program is deficient in cultural elements, and that over-emphasis is placed on some factors in its program less in value than those omitted. A lack of coordination with other educational agencies on the local level was stressed and the danger of increasing divergencies with increased funds pointed out. Conflicts between boys and girls clubs and the day vocational schools and between the home economics work for adult women and the demonstration work were given as examples.

Close coordination of all home economics activity—research, college teaching programs, adult education programs, and the instruction given in the various levels of all the schools, regular and vocational, and as fostered by all agencies—federal, state, and local—was put forth as the desired goal.

The 1929 Psychological Examination

THE 1929 edition is the sixth edition of the American Council on Education Psychological Examination. By January 10, 1930, orders from 283 schools for a total of 109,833 tests had been received.

Reports of scores on the 1929 edition have been received from 131 colleges. These reports cover the scores of 34,507 students. Gross scores have been tabulated for all these records, and scores in the five separate tests of the examination have been tabulated for all colleges whose records were received by January 1, 1930. These include scores of 24,524 students in 94 colleges. The list of colleges whose scores are the basis for the norms in this report is given below. The number of records received from each and the median gross scores are also given.

Following the list of colleges are frequency distributions and tables of norms for each of the five separate tests and for gross scores in the examination.

In the last table are shown also the percentile ranks for corresponding gross scores in the 1928 edition of the examination. This is the first time that we have tried to make gross scores directly comparable, and the table shows how nearly that purpose has been achieved. The differences in percentile rank for the same score for the two years are very small and we can say that gross scores in the two editions are directly comparable. It is hoped to make all successive editions directly comparable in gross score.

Equivalent scores for the 1926, 1927, and 1928 editions were given in the EDUCATIONAL RECORD for April, 1929 (X, No. 2, pp. 105–115).

LIST OF COLLEGES SUBMITTING RECORDS ON THE 1929 EXAMINATION

	No. of students	*Median gross score*
Alabama College	324	86.81
Alabama State Teachers College	219	89.50
Allegheny College	203	156.38
University of Arizona	482	142.22
Baker University	109	128.13
Bates College	200	160.59
Baylor College	279	96.25
Baylor University	449	112.24
Belhaven College	66	106.67
Berea College	124	122.86
Birmingham Southern College	274	108.92
Bradley Polytechnic Institute	215	119.78
Brenau College	221	113.42
Bucknell University	335	163.27
University of Buffalo	311	173.41
Carleton College	320	159.00
Case School of Applied Science	213	175.88
Centenary College of Louisiana	203	109.30
University of Chattanooga	161	112.69
University of Chicago	684	184.92
Clark University	78	181.25
Coe College	245	127.50
Colby College	173	166.08
Colgate University	290	166.67
Culver-Stockton College	101	112.14
Dartmouth College	619	196.64
University of Delaware	231	115.50
De Pauw University	585	142.77
Dickinson College	184	153.33
Drury College	152	131.82
D'Youville College	57	163.75
Earlham College	125	144.38
Eastern Oregon State Normal	170	119.01
Emory University	179	137.22
College of Emporia	134	139.01
Eureka College	55	141.25
Fisk University	115	103.18
Florida State College for Women	806	126.05
University of Florida	669	136.36
Fresno State Teachers College	157	153.50
University of Georgia	521	99.71
Gettysburg College	171	134.69
Goshen College	70	121.67
Graceland College	97	115.00
Grinnell College	252	160.56
Haverford College	78	222.86
University of Idaho	700	126.10
Illinois College	146	141.00
Immaculata College	60	141.67
Iowa Wesleyan College	106	126.36

Jamestown College	120	146.00
Judson College	85	113.13
Kalamazoo College	146	158.00
Kansas State Teachers College	444	109.55
Kenyon College	87	181.50
Lawrence College	294	142.17
Lehigh University	439	166.25
Loretto Heights College	36	123.33
Loyola University	210	133.08
Marion College	51	127.50
Maryland State Normal (Frostburg)	95	97.86
Maryland State Normal (Towson)	351	133.91
University of Maryland	376	144.40
Maryville College	330	121.11
Marywood College	81	171.64
Massachusetts Agricultural College	184	181.54
Meredith College	144	97.34
University of Michigan	1620	164.91
Minnesota State Teachers College	396	139.80
Missouri Valley College	94	113.64
University of Montana	407	137.42
Morristown College	19	82.50
College of Mt. St. Vincent	127	158.61
Morton Junior College	160	144.44
Nebraska State Teachers College	237	117.75
University of Nevada	227	142.40
H. Sophie Newcomb College	113	160.83
University of New Hampshire	420	146.67
University of New Mexico	285	116.62
University of North Carolina	692	112.28
Northwestern University	1054	172.72
Oklahoma School of Agriculture and Mines	942	107.18
Oregon Institute of Technology	14	110.00
University of Oregon	827	135.76
Pacific University	81	123.90
Park College	189	168.50
Pennsylvania College for Women	91	141.73
Pennsylvania State Teachers College	695	111.63
Phillips University	175	126.25
Pomona College	232	187.15
College of Puget Sound	222	144.78
University of Redlands	152	153.13
Rollins College	106	149.00
Rosary College	120	128.89
Rosemont College	63	175.00
College of St. Elizabeth	80	170.00
St. Joseph's College	58	165.00
St. Mary College	44	123.33
St. Mary's College	298	128.33
St. Mary of the Woods College	85	148.33
St. Vincent's College	62	138.00
St. Xavier College	34	150.00
Santa Barbara State Teachers College	220	135.00
Seton Hill College	84	154.54
Shepherd College	83	91.00
Shorter College	80	122.00
University of South Carolina	389	97.17

Southern Methodist University	447	143.40
Southwestern College	193	131.07
Sweet Briar College	184	175.79
Syracuse University	1103	162.77
Temple University	1025	153.74
Texas State College of Industrial Arts	669	112.23
Thiel College	70	151.43
Tusculum College	68	109.00
Union College	295	175.37
Vanderbilt University	261	153.22
University of Vermont	316	147.50
Virginia Polytechnic Institute	448	114.17
Wabash College	135	136.43
Washburn College	273	137.25
Washington College	95	124.38
Washington and Jefferson College	124	160.67
Webster College	74	138.63
Wells College	90	196.25
Western Maryland College	111	129.17
Western State Teachers College	574	128.54
Winona State Teachers College	235	130.25
Yankton College	114	135.00
Y. M. C. A. College (Chicago)	87	134.17
Y. M. C. A. (New York)	48	132.00
Total	34,507	140.67

Completion Test, 1929 Edition

Norms based on records of 24,345 students in 93 colleges.
Score equals two times the number of right answers.
Perfect score equals 80.

Score	*Frequency*	*Percentile rank*	*Score*	*Frequency*	*Percentile rank*
0	51	.001	42	905	.774
2	92	.004	44	796	.809
4	162	.009	46	730	.841
6	265	.018	48	615	.868
8	430	.032	50	604	.893
10	530	.052	52	521	.916
12	680	.077	54	434	.936
14	843	.108	56	345	.952
16	907	.144	58	249	.964
18	1055	.184	60	238	.974
20	1145	.229	62	160	.982
22	1146	.277	64	124	.988
24	1318	.327	66	95	.993
26	1248	.379	68	57	.996
28	1326	.433	70	29	.997
30	1310	.487	72	24	.998
32	1270	.539	74	11	.999
34	1256	.592	76	6	.999
36	1188	.642	78	4	.999
38	1117	.689	80	1	.999
40	1058	.734			

Artificial Language Test, 1929 Edition

Norms based on records of 24,345 students in 93 colleges.
Score equals the number of words correctly translated.
Perfect score equals 73.

Score	*Frequency*	*Percentile rank*	*Score*	*Frequency*	*Percentile rank*
0–2	250	.005	36–38	1282	.682
3–5	239	.015	39–41	1313	.735
6–8	391	.028	42–44	1055	.784
9–11	566	.048	45–47	943	.825
12–14	1000	.080	48–50	915	.863
15–17	1462	.130	51–53	866	.899
18–20	1898	.199	54–56	690	.932
21–23	2463	.289	57–59	369	.953
24–26	2303	.387	60–62	291	.967
27–29	2160	.478	63–65	230	.978
30–32	1718	.558	66–68	180	.986
33–35	1511	.624	69–71	179	.993
			72–73	71	.998

Analogies Test, 1929 Edition

Norms based on records of 24,524 students in 94 colleges.
Score equals two times the number of right answers.
Perfect score equals 56.

Score	*Frequency*	*Percentile rank*	*Score*	*Frequency*	*Percentile rank*
0	358	.007	30	1207	.835
2	385	.022	32	1036	.881
4	535	.041	34	747	.917
6	800	.068	36	624	.945
8	1054	.106	38	392	.966
10	1256	.153	40	244	.979
12	1510	.209	42	159	.987
14	1661	.274	44	120	.993
16	1828	.345	46	61	.997
18	1838	.420	48	28	.998
20	1907	.497	50	12	.999
22	1803	.572	52	2	.999
24	1852	.646	54	3	.999
26	1685	.719	56	4	.999
28	1413	.782			

Arithmetic Test, 1929 Edition

Norms based on records of 24,524 students in 94 colleges.
Score equals four times the number of right answers.
Perfect score equals 80.

Score	*Frequency*	*Percentile rank*	*Score*	*Frequency*	*Percentile rank*
0	292	.006	44	887	.909
4	1064	.033	48	582	.939
8	1937	.095	52	429	.961
12	2856	.193	56	291	.975
16	3108	.314	60	190	.985
20	3093	.440	64	120	.991
24	2763	.559	68	91	.996
28	2229	.661	72	36	.998
32	1841	.744	76	20	.999
36	1479	.812	80	5	.999
40	1211	.867			

Opposites Test, 1929 Edition

Norms based on records of 24,524 students in 94 colleges.
Score equals the number of words correctly translated.
Perfect score equals 81.

Score	*Frequency*	*Percentile rank*	*Score*	*Frequency*	*Percentile rank*
0	533	.011	42	1226	.626
3	307	.028	45	1185	.675
6	494	.044	48	1092	.722
9	666	.068	51	1051	.765
12	895	.099	54	1016	.807
15	1106	.140	57	885	.846
18	1163	.187	60	784	.880
21	1292	.237	63	698	.910
24	1295	.289	66	605	.937
27	1407	.345	69	499	.959
30	1388	.402	72	361	.977
33	1444	.459	75	248	.989
36	1380	.517	78	101	.996
39	1371	.573	81	32	.999

Gross Score, 1929 Edition

Norms based on records of 34,507 students in 131 colleges.
Perfect score equals 370.

Score	*Frequency*	*Percentile rank*	*Percentile rank of same score in 1928 edition*
0–9	11	.000	.000
10–19	32	.001	.001
20–29	89	.003	.005
30–39	243	.007	.014
40–49	423	.017	.030
50–59	692	.033	.054
60–69	983	.057	.086
70–79	1455	.093	.126
80–89	1754	.139	.174
90–99	2027	.194	.228
100–109	2209	.255	.287
110–119	2395	.322	.349
120–129	2396	.392	.413
130–139	2387	.461	.479
140–149	2339	.529	.544
150–159	2278	.596	.608
160–169	2192	.661	.669
170–179	1959	.721	.726
180–189	1721	.774	.778
190–199	1554	.822	.824
200–209	1269	.863	.864
210–219	1086	.897	.897
220–229	872	.925	.926
230–239	697	.948	.964
240–249	481	.965	.977
250–259	361	.977	.986
260–269	242	.986	.992
270–279	154	.992	.995
280–289	100	.995	.997
290–299	66	.998	.998
300–309	17	.999	.999
310–319	14	.999	.999
320–329	8	.999	.999
330–339	1	.999	.999

The reliability of the separate tests used in the 1928 and 1929 editions of the Psychological Examination has been determined as well as the reliability of the gross scores for the two examinations. The examination papers of two hun-

dred freshmen for the 1928 examination and the papers of three hundred freshmen for the 1929 examination have been used in the study. The score on the even-numbered items for each test and for the gross score, and the score on the odd-numbered items for each test and for the gross score were determined for each student. In the Artificial Language test one word was counted as one question. If the sentence had been taken as the unit, all the odd-numbered items would have represented translation from English to the artificial language, while all the even-numbered items would have represented translation from the artificial language to English.

Correlations between corresponding odd and even scores were calculated. These correlation coefficients measure the reliability of half of each test and of half of the gross score. Application of the Spearman-Brown formula to these coefficients gives a measure of the reliability of scores on each test and on the whole examination. The table shows the value of the coefficients so obtained for the 1928 and 1929 editions.

Test	*Reliability Coefficients* 1928 *edition*	1929 *edition*
Completion	.801	.843
Artificial Language	.988	.981
Analogies	.863	.786
Arithmetic	.871	.824
Opposites	.877	.850
Gross Score	.941	.943

The first edition of the American Council on Education Psychological Examination was published in 1924. Each year we have reported studies of the correlations between test scores and academic grades as measures of the predictive value of the tests. There were nine separate tests in the 1924 examination but only the most diagnostic have been retained. The present examination, as well as the two preceding, contains five separate tests, four of which were used in the 1924 edition.

It is now possible to measure the predictive value of the Psychological Examination by means of another criterion—the fact of graduation or non-graduation after four years. This report contains such an analysis for the 1924 examina-

tion; a subsequent paper will shortly be published reporting a similar study of the 1925 examination.

In the early use of the examination we had not determined weights to be assigned to the separate tests; so we could not calculate a single score for each student. We now weight each of the separate tests and determine a gross score for each student. Since the four tests common to the 1924 and 1929 editions are of the same length we have calculated a weighted gross score for all our records on the 1924 edition. This has been done by multiplying the mean score in each test by the present weight assigned to that test. This gives a single score in the 1924 edition. Gross scores on these two editions will, however, not be directly comparable since the conditions of giving the tests were quite different and since recent editions contain one more test.

We have sent all the student records we received from the colleges in the school year 1924-25 back to the registrars of the respective colleges asking them to indicate the present status of each student. Thirty-one colleges have returned these records, but we have been able to use only twenty-nine because two were incomplete. For our purposes we have grouped the students in three groups:

1. Those who were graduated at the end of four years (or less).
2. Those who were dropped or who left school.
3. All other students, including those who transferred to another institution, those who are still in school, those who died, etc.

We are interested only in the first and second of these groups. We have put into one group those students who were dropped by the college and those whom the registrars report simply as having left. It may at first thought seem as if these should have been divided into two groups, but other studies have shown that the difference between these two groups is not great; so we have placed them all together.

For each of these two groups, whom we shall call graduates and non-graduates, we have plotted the distribution of test scores in the Completion Test, the Arithmetic Test, the Artificial Language Test, and the Opposites Test—the four tests

common to the 1924 and 1929 editions of the examination. We have then calculated the mean score in each of the four tests for each of the twenty-nine colleges. We have also weighted each mean by the multiplying factor used for the corresponding test in the 1929 edition and calculated a mean gross score for each of the two groups in each of the colleges. A summary of these average gross scores is given in the table. The last column of the table shows the difference in gross scores, average for graduates minus average for non-graduates. It is clear that there is a consistent difference in test scores in favor of the students who graduate.

	Graduates		*Non-Graduates*		
Name of College	*Number*	*Average score*	*Number*	*Average score*	*Difference*
Bucknell University	182	104.84	105	93.63	11.21
Case School of Applied Science	79	131.24	99	109.29	21.95
Central State Teachers College	262	88.75	118	75.83	12.92
Dartmouth College	400	125.81	238	104.61	21.20
Dickinson College	72	120.34	67	101.05	19.29
Drury College	50	108.02	62	86.23	21.79
Gettysburg College	97	104.99	64	83.76	21.23
Gustavus Adolphus College	79	93.75	36	82.50	11.25
Iowa State Teachers College	423	95.41	335	88.02	7.39
Kalamazoo College	52	116.14	37	93.21	22.93
University of Michigan (Medicine)	96	136.66	20	132.65	4.01
University of Montana	120	103.30	282	86.19	17.11
Mount Holyoke College	230	149.29	34	127.93	21.36
Nebraska Wesleyan University	28	103.45	64	84.31	19.14
University of New Hampshire	180	108.73	95	98.23	10.50
University of North Carolina	263	90.24	408	66.64	23.60
Northwestern University	319	121.20	389	101.51	19.69
College of the City of New York	503	137.69	284	127.25	10.44
Ohio Wesleyan University	127	113.16	100	80.86	32.30
Oregon Agricultural College	84	119.93	70	107.56	12.37
Ripon College	44	102.61	43	76.55	26.06
Transylvania College	37	93.22	42	78.89	14.33
University of Utah	63	102.64	40	84.78	17.86
Vanderbilt University	104	113.90	104	90.21	23.69
Vassar College	223	168.29	75	155.43	12.86
University of Vermont	167	113.80	150	99.03	14.77
Virginia Union University	34	69.04	48	41.00	28.04
Wilson College	85	140.53	35	112.07	28.46
Wooster College	124	117.49	87	93.49	24.00

Three colleges—the University of Michigan, Florida State College for Women, and the University of Chicago—sent in detailed records of scholarship for the students who took the 1928 Psychological Examination. Pearson coefficients of correlation between test scores and college grades were cal-

culated as a measure of the prognostic value of the examination. In addition to these data, statements of the predictive value of the examination have been received from thirty-six colleges (the University of Michigan included). Some of these were brief statements; others were rather detailed reports. A short summary of each is included in this paper.

Letters were sent out to about two hundred colleges that used the 1928 edition of the examination asking them for reports of the diagnostic value of that examination or of any previous editions. Many of the colleges reported that they had not made any studies of the kind we wanted, but there were also a large number that sent interesting reports.

Many of the colleges are less interested in studies of predictive value of the tests because they feel that it has already been established. They report various uses of the examinations, as, for example, comparison of their own group with other colleges; advisory work with students by deans and heads of departments; comparison of successive entering classes; matching students in controlled experiments; various group comparisons, as between men and women, fraternity and non-fraternity members, athletes and non-athletes, and various professional groups.

Five or six answers said that no studies of correlation had been made because of the extreme lack of uniformity in grading among different teachers. The following quotation from one of the letters is a good sample of the difficulty:

> You will observe that the correlations vary decidedly with the subject matter and the year of college work considered. This is due in part, I am convinced, to the variation of teachers' marks in different departments and even within the same department themselves. For example, two teachers in freshman English of this year who are teaching unselected groups vary from 76 as the highest mark for one teacher to 95 as the highest mark for the other teacher. When all these freshmen are thrown together and are considered as a single group it is easy to see what effect this will have on correlations.

About twenty replies stated that studies were under way but had not yet been completed. We shall be interested to see the results of those studies.

We should like to call special attention to the correlations from the University of Michigan and from the University of

Wisconsin. The groups are so large that we feel they deserve a great deal of confidence. It should be stated also that the average score for each of these institutions was considerably higher than for the whole group of colleges, a factor which would tend somewhat to lower the coefficients.

Table 1 presents a summary of the correlations between the tests and scholarship in three universities. The correlations between scholarship and gross score vary from .43 to .65 with an average coefficient of .54. These coefficients are satisfactory for an intelligence test. The principal factors that influence these coefficients are the reliabilities of the tests and of scholarship grades as well as the range of ability represented by the freshman class. If the scholarship grades in a college are not reliable or discriminating, the correlation between scholarship and test scores will be lowered. This is found occasionally in those colleges in which the grades are assigned by standards that vary considerably from one instructor to another or from one department to another. When the grading standards of a college are maintained with fair uniformity among the different courses, the correlations between the tests and grades should be between .40 and .60.

Another important factor, not so often noted, is the range of ability of the freshman class. A college that selects its students carefully at the time of admission must expect to find lower correlations between tests and scholarship than the colleges in which selection of freshmen is less rigorous. The correlations are, in fact, highest for the colleges in which the range in ability is the greatest. From this it follows that, in general, the correlations between tests and scholarship will be lower in the Eastern colleges that select students largely by the New York State Regents examinations or by the College Entrance Board examinations and in the privately endowed universities than in the state universities where the selective process for the freshmen is not so severe. These comparisons may have no effect on the comparisons for seniors in the same colleges. It is largely a question of whether the selection of degree students should be made at the time of admission or during the freshman year. A low

correlation between tests and scholarship may mean, therefore, a loose grading system or lack of uniformity of standards in the different departments, or it may mean a very highly selected freshman class from which the failures have already been eliminated by entrance examinations or by other effective methods.

TABLE 1.—*Correlations between* 1928 *tests and scholarship*

College	*No. of cases*	*Completion*	*Art. Lang.*	*Analogies*	*Arithmetic*	*Opposites*	*Gross score*
University of Chicago.....	550	.348	.256	.169	.312	.423	.432
University of Michigan.....	1283	.369	.420	.324	.325	.408	.498
Florida State College:							
Home Economics.....	43	.492	.311	.251	.214	.431	.513
Liberal Arts.....	169	.516	.539	.417	.382	.494	.609
Education.....	206	.502	.559	.454	.468	.583	.646
Total.....	2251						
Average correlations.....		.445	.417	.323	.340	.468	.539

The following paragraphs present a summary of the reports received from the individual colleges:

Alma College

Registrar R. W. Clack has calculated the correlation between test scores and first semester grades for four successive freshman classes. For 184 girls he finds a correlation of .497; for 286 boys, a correlation of .374.

University of Arizona

Professor J. F. Walker writes the following paragraphs about the use of the tests.

The extent to which the Psychological Test is predictive of the quality of work, of an academic nature, which the individual is likely to accomplish, is shown by the fact that out of the 38 freshmen who had taken the test and whose record shows a 50 per cent failure on the mid-term D list, 28, or 74 per cent, had made scores below the 25th percentile on the test. An additional 7, or 18 per cent, had fallen below the median score of the group. Thus it is seen that 92 per cent of this group of college delinquents had scored below the median of the group on the Psychological Test. There were two individuals in the third quartile and one only in the fourth quartile on the test who failed to carry 50 per cent of the college load.

A similar situation appears when the total record of failure to carry a full load is examined. There were 192 freshmen against whom some degree of failure was recorded on this D list. Of these individuals, 79,

or 41 per cent, were found to have scores included in the lowest quartile on the Psychological Test; 130, or 67 per cent, had scores below the median score. The remaining 62 individuals had scores scattered throughout the upper quartiles.

It is evident that failure to make a high score on the Psychological Test does not mean that it is impossible for the individual to do work of passing grade in the University, but it does mean that the probability of failure by such a student is very high. It would probably be better if students falling into the lowest quartile should be limited in load and in activities.

University of Arkansas

J. R. Gerberich reports a correlation of .473 between gross scores in the 1929 examination and grade point averages for the first semester.

University of California (School of Education)

The findings below are summarized from a thesis by Mr. G. P. Cahoon on "Some Factors in the Prediction of Success in Practice Teaching."

The correlation between psychological test scores and college marks as represented by the academic index for the May, 1928, group was +.29, and for the December group was +.40. Over three-fourths of the student teachers of the two groups of May and December, 1928, received scores above the median score of five thousand freshmen. As measured by the test, the student teachers of these groups are, therefore, somewhat of a selected group.

Correlations between test scores and ability in practice teaching as measured by a rating sheet were found to be +.14, +.097, and +.25. Thus there is no significant relation between scores on the Psychological Examination and success in practice teaching as measured by the rating sheets.

Centenary College

Professor C. L. Odom reports a correlation of .53 between scores on the 1928 test and college grades. He also made a comparative study of the students who returned to the college as sophomores and those who did not. The table which gives the average percentile rank of each group of students (frequencies in parentheses) shows that the better students come back for their sophomore year. This table is reported

not for the purpose of showing the predictive value of the Psychological Examination so much as to show how the college has used the test results to get information about the type of student who stays in college.

	Students who returned average percentile	*Students not returned average percentile*
Girls	50.2 (34)	38.2 (22)
Boys	48.3 (59)	33.7 (35)

Colgate University

G. H. Estabrooks reports a correlation of .316 between intelligence scores (1928 edition) and freshman grades.

Colorado State Teachers College

The data reported here are taken from a letter from Arthur K. Goodman and from four mimeographed reports to the Director of Freshman Studies at the College. Two of these were written by Mr. Goodman, one by Philip M. Condit, and one by Wilford H. Woody. The study by Mr. Condit refers to the 1927 examination, and the one by Mr. Woody refers to the 1926 examination. Mr. Goodman's two studies are based on the 1928 examination and his letter reports a correlation for the 1929 edition.

The following paragraphs are quoted from Mr. Woody's report:

Of the 187 who failed to complete three quarters of work, 40 per cent were in the lowest fifth in intelligence; 65 per cent were in the upper fifth.

With but 570 students out of 626 earning grades for the fall quarter, a loss of 56, or 8.95 per cent, is recorded. Of this loss 33, or 58.93 per cent, were in the lowest fifth in intelligence; and 43, or 76.78 per cent, in the lower half in intelligence. At the same time but 9, or 16.07 per cent, were lost from the upper fifth of the intelligence distribution.

Of the total loss during the freshman year, 187 students, 64.7 per cent were in the lower half of the intelligence distribution.

Of the lowest fifth in intelligence scores 49.66 per cent were gone at the end of three quarters, while of the highest fifth only 17.78 per cent were gone.

The two statements below are from Mr. Condit's report:

Average scholarship correlates .454 with intelligence scores.

Mortality was much heavier for the lower deciles of intelligence (51.7 per cent for the first and 7.5 per cent for the tenth).

The remaining statements are from Mr. Goodman's reports and letter:

Average scholarship correlated .494 with the Psychological Examination scores.

Mortality was 47.5 per cent in the first decile of intelligence, 27.7 per cent in the tenth.

The approximate means (college grades) for each decile of intelligence increase rather erratically from 2.80 in the second decile to 3.72 in the tenth decile. The pertinent fact here is that the individuals in the tenth decile average nearly one letter grade higher than do those in the second decile of intelligence.

Mr. Goodman reports a correlation of .495 between 1929 test scores and average scholarship for the first quarter of this year.

University of Delaware

Professor W. A. Wilkinson reports a correlation of .535 between scores on the Psychological Examination and the "scholarship index," a weighted index for total scholarship. The test used was the 1926 edition, and the records of 250 freshmen were used.

Duke University

Professor Holland Holton submits the two following tables which show the number of students passing five courses for each of the five quintiles in the Psychological Examinations of 1927 and 1928:

1927 *Examination*

Quintile	*Range of gross scores*	*Number passing 5 courses*
5	148–265	55
4	120–147	34
3	95–119	37
2	70–94	17
1	15–69	9

1928 *Examination*

Quintile	*Range of gross scores*	*Number passing 5 courses*
5	153–295	56
4	122–152	33
3	94–121	25
2	66–93	16
1	2–65	10

From the same university, James M. Godard, Assistant in Education, writes:

> Among other things we are finding that a combination of intelligence test and reading test is valuable; if the reading test score alone is low and the intelligence score average, we may improve the reading ability, but, if both are low, it is very difficult to give remedial reading treatment.

Emory University

M. C. Langhorne reports a correlation of .55 between 1925 test scores and scholastic achievement.

College of Emporia

Dean Conrad Vandervelde reports the following correlations for the 1925 examinations:

Test Scores and Freshman Grades	.44
Test Scores and Sophomore Grades	.66
Test Scores and Junior Grades	.63
Test Scores and Senior Grades	.69
Test Scores and Grades for Four Years	.745

Fisk University

Theresa A. Birch sends in the following table showing the relation between the quartile standing of a student in the Psychological Examination and his scholarship average. The numbers represent frequencies.

Quartile	*Grade average*				
	E	D	C	B	A
4	1	10	24	18	2
3	1	1	33	8	
2	4	23	23	3	
1	7	24	18		

University of Florida

Professor E. D. Hinckley calculated the correlation between gross scores on the 1929 test and mid-semester grades for 620 freshmen and found it to be .477. He also reports a correlation for 426 cases between the artificial language score and grade in foreign language (French, German, or Spanish) of .362 and a correlation between mathematics grades and analogies test scores of .266 (456 cases).

Franklin and Marshall College

P. M. Harbold, Professor of Education, sends the following table showing the grades of the 231 freshmen who took the 1928 test:

Decile	*Range of Grade Indices*	*Median Grade Index*
Highest	213–700	456
9	171–681	469
8	36–644	412
7	88–600	388
6	177–553	356
5	106–613	451
4	90–682	349
3	88–508	305
2	35–541	256
1	50–441	192

Grinnell College

Mitchell Dreese reports correlations of .51 between test scores and freshman grades, .38 between test scores and sophomore grades, and .54 between test scores and combined grades for freshman and sophomore years.

Howard University

Professor F. C. Sumner reports a correlation of .55 between scores in the 1928 examination and first quarter scholarship.

University of Idaho

R. M. Mosher has made a comparison of the eight lowest and the nine highest ranking students according to the examination. He finds that the average number of credits earned by the low group was 13.3; by the high group, 16.1. The average number of points earned by the low group was 3.73; by the high group, 4.79. He says further that no student in the low group earned as high a score as the lowest student in the high group.

Iowa State Teachers College

M. J. Nelson reports a correlation of .521 between grades in psychology and gross scores in the American Council on Education Examination.

Iowa Wesleyan College

The results of the tests here given were reported by Professor Willis J. Bell.

At the end of the first semester of 1926–1927 I found that in that class of 132 freshmen the highest-ranking ten (as to mental test gross scores) had earned 371 grade points; and the lowest-ranking ten had received 68 grade points. The sum of the gross mental scores for the high ten was 2,422, and the low ten 479.

COMPARISON OF TEST SCORES AND GRADE POINTS

(1926 Freshman Class, First Semester)

Quartile	*Sum of gross scores on psychological examination*	*Grade points*
4	6752	966
3	4853	715
2	3781	545
1	2351	279

NUMBER OF STUDENTS REMAINING IN COLLEGE

Freshman class of	*Semesters*	*Quartile in psychological examination* 4	3	2	1
1926	1	33	33	33	33
	2	28	32	24	24
	3	21	18	14	11
	4	20	13	13	9
	5	11	9	13	4
1927	1	35	34	34	35
	2	31	30	32	24
	3	26	26	14	15
1928	1	28	28	28	28

AVERAGE INDIVIDUAL GRADE POINTS OF STUDENTS BY QUARTILES

Freshman class of	*Semesters*	*Quartile in psychological examinaton* 4	3	2	1
1926	1	29.93	21.69	14.50	8.93
	2	29.89	22.57	21.04	13.58
	3	31.20	23.55	20.02	12.09
	4	32.65	27.69	22.00	17.77
	5	33.09	20.55	19.90	24.25
1927	1	29.94	20.60	14.29	10.00
	2	32.45	25.40	21.37	17.41
	3	30.46	20.07	20.57	17.40
1928	1	30.39	21.29	15.00	11.48

Lehigh University

Professor Percy Hughes reports a correlation between 1927 test scores and first semester grades of .46, and a correlation between the same test and second semester grades of .53.

The following table has been summarized from a report by Professor T. N. Newcombe:

Decile	*Average grades*	*Percentage of students receiving honors*	*Percentage of students dropped*
10	2.369	26.32	22.29
9	1.956	10.16	9.21
8	1.885	9.09	14.06
7	1.665	6.16	17.58
6	1.786	3.00	23.97
5	1.642	4.03	15.29
4	1.551	6.42	19.35
3	1.344	2.73	25.69
2	1.288	1.77	33.64
1	1.046	0.98	32.74
Total	1.737	7.56	48.04

Massachusetts Agricultural College

Professor H. N. Glick has submitted all the tables following:

CORRELATION OF PSYCHOLOGICAL EXAMINATION SCORES WITH SCHOOL MARKS

Class of 1929—Examination issue of 1924:

Average grade for first term freshman year and Psychological Examination ..... .466 ± .04
Average grade for second term freshman year and Psychological Examination ..... .387 ± .05
Average grade for third term freshman year and Psychological Examination ..... .354 ± .05
Average grade for entire term freshman year and Psychological Examination ..... .421 ± .05

Average grade for first term sophomore year and Psychological Examination ..... .263 ± .06
Average grade for second term sophomore year and Psychological Examination ..... .229 ± .06
Average grade for third term sophomore year and Psychological Examination ..... .258 ± .06
Average grade for entire term sophomore year and Psychological Examination ..... .299 ± .06

Average grade for entire junior year and Psychological Examination ..... .345 ± .07
Average grade for entire senior year and Psychological Examination ..... .248 ± .07
Average for the entire course and Psychological Examination ..... .426 ± .06

Correlations between freshman courses of Class of 1929 and Psychological Examination, 1925 test:

Agriculture and Psychological Examination ..... .507 ± .04
Chemistry and Psychological Examination ..... .302 ± .06
Mathematics and Psychological Examination ..... .473 ± .05
English and Psychological Examination ..... .471 ± .05
Military and Psychological Examination ..... .308 ± .06
Botany and Psychological Examination ..... .401 ± .06

Class of 1930—1926 test:

Average grade of first term freshman year and Psychological Examination	.524 ± .04
Average grade of second term freshman year and Psychological Examination	.417 ± .05
Average grade of third term freshman year and Psychological Examination	.364 ± .05
Average grade of entire term freshman year and Psychological Examination	.469 ± .04
Average grade of first term sophomore year and Psychological Examination	.400 ± .05
Average grade of second term sophomore year and Psychological Examination	.218 ± .06
Average grade of third term sophomore year and Psychological Examination	.224 ± .06
Average grade of entire term sophomore year and Psychological Examination	.347 ± .06
Average grade for entire junior year and Psychological Examination	.211 ± .07

Class of 1931—1927 test:

Average grade for first term freshman year and Psychological Examination	.405 ± .05
Average grade for second term freshman year and Psychological Examination	.376 ± .05
Average grade for third term freshman year and Psychological Examination	.408 ± .05
Average grade for entire term freshman year and Psychological Examination	.402 ± .05
Average grade for first term sophomore year and Psychological Examination	.209 ± .06
Average grade for second term sophomore year and Psychological Examination	.254 ± .06
Average grade for third term sophomore year and Psychological Examination	.396 ± .06
Average grade for entire term sophomore year and Psychological Examination	.332 ± .06

Class of 1932—1928 test:

Correlations of average grades and Psychological Examination:

Average grade of first term freshman year and Psychological Examination	.491 ± .04
Average grade of second term freshman year and Psychological Examination	.359 ± .05
Average grade of third term freshman year and Psychological Examination	.254 ± .05
Average grade of entire term freshman year and Psychological Examination	.352 ± .05

Correlation between Psychological Examination and Courses for Freshman year:

Agriculture and Psychological Examination	.373 ± .05
Chemistry and Psychological Examination	.361 ± .05
Mathematics and Psychological Examination	.346 ± .05
English and Psychological Examination	.235 ± .03
Botany and Psychological Examination	.0906 ± .06
Military and Psychological Examination	.418 ± .05

University of Michigan

Mrs. Ruth A. Brown, Research Assistant, reports the following Pearson product moment r's between average first term grades of the freshmen entering in 1928 and the 1928 edition of the American Council test, for the groups designated:

	Literary College (877 cases)	*Engineering* (252 cases)	*Total all colleges* (1280 cases)
Total Score	.526	.473	.498
Completion	.370	.377	.369
Art Lang	.454	.349	.420
Analogies	.318	.385	.324
Arithmetic	.318	.443	.325
Opposites	.438	.356	.408

Mrs. Brown also has made a comparison, similar to Stalnaker's at Purdue, between five groups and the total class. The "Withdrawn No Grades" group includes those who withdrew during the first semester; the "Withdrawn with Grades" group, those who withdrew at the end of the first semester; and the "Honor" group, those whose first semester average was B+ or better.

Group		*Average psychological test score*
Normal	Men	170.95
	Women	166.18
Honor	Men	235.68
	Women	211.43
Withdrawn No grades	Men	133.41
	Women	109.13
Withdrawn With grades	Men	122.50
	Women	111.43
Probation	Men	137.70
	Women	133.75
Total	Men	164.10
	Women	160.00
	All students	162.94

University of New Hampshire

George N. Bauer reports a correlation of .458 between first term grades and scores on the 1928 Psychological Examination.

University of North Carolina

Dean Francis Bradshaw sends the following table showing the percentage of students for each decile of the Psychological Examination who failed to pass in their freshman year the number of courses required for readmission to the University the following year. The figures are based on the records of about 3,500 freshmen and cover a period of five years.

Decile	*Per cent failing*
10	1.8
9	7.0
8	4.2
7	13.3
6	14.1
5	20.2
4	23.8
3	28.0
2	24.3
1	20.0

Dean Bradshaw has also made comparisons among the different dormitory groups at the University and between residents of the State of Carolina and non-residents.

University of Oregon

The following tables were submitted by Howard R. Taylor, Personnel Director of the University. He has also made a study of student transfers which is significant for his own institution.

TABLE 1.—*Correlation of Psychological Examination with University of Oregon Grades (first term)*

Year	*Sex*	*Number of cases*	*Correlation coefficient*
1925	Men and women	189	.425
1926	Men	438	.440
	Women	364	.345
1927	Men	470	.466
	Women	392	.569
1928	Men and women	970	.484

TABLE 2.—*Correlation of Psychological Examination with University of Oregon Grades (6 and 12 terms)*

No. of terms	*Sex*	*Number of cases*	*Correlation coefficient*
6	Men	167	.423
	Women	196	.527
12	Men	62	.486
	Women	110	.610

TABLE 3.—*Correlation of Separate Tests with University of Oregon Grades (6 terms)*

Test	*Sex*	*Number of cases*	*Correlation coefficient*
Completion	Men	184	.327
	Women	212	.420
Arithmetic	Men	184	.426
	Women	212	.356
Artificial language	Men	184	.300
	Women	212	.382
Analogies II (forms)	Men	184	.367
	Women	212	.360
Opposites	Men	184	.291
	Women	212	.485

College of Puget Sound

Marcia Edwards reports a correlation coefficient of .68 for test scores and grade point averages for first semester. (1928 test taken in 1928.)

Purdue University

Purdue University has made several very comprehensive studies of the predictive value of the examinations and of student selection and elimination. Professor H. H. Remmers and Mr. J. M. Stalnaker are the authors of bulletins describing the results of these studies.

Correlations between Psychological Examination gross scores and first semester grades in the University have been determined for three editions of the examination. These correlations are as follows:

Year	*r*
1926	.57
1927	.478
1928	.387

Professor Remmers found that in considering elimination of students the Psychological Examination was quite sig-

nificant. He found that the poor students (those low in the intelligence test) were dropped mostly through the first year. Those who dropped out during or after the end of the second year were nearly as good as the average group.

Mr. Stalnaker made a comparison between the average scores on the Psychological Examination of four groups and the total group of freshmen who took the examination in 1926. The numbers in the parentheses represent the number of students in each group.

Normal	*Honor*	*Withdrawn*	*Probation*	*Total*
(760)	(34)	(44)	(192)	(1030)
159.24	232.94	127.27	116.98	152.43

State Teachers College, Fresno, California

Professor John W. Groves writes:

In a study involving a two-year period of scholarship records of students in all four years who had taken the Psychological tests we found a correlation of .5902 (this involved 987 students in all courses carried for one entire year—two semesters, or for two years—four semesters).

Vanderbilt University

The following information has been abstracted from a report by Mr. Eugene G. Bugg. It concerns largely the 1924 and the 1927 editions of the examination.

The correlation between test scores for the 1924 edition and total grades was .613; between test scores and average grades, .622; between test scores and mathematics grades, .545.

The correlation between test scores for the 1927 test and scholastic grades was .625.

The chance of a student in the first quartile getting on the honor roll was nine times that of a student in the lowest quartile.

The table shows the percentage of students in each quartile of the 1924 examination who were later rated as seniors.

Quartile	*Percentile rated seniors*
4	41
3	37
2	19
1	17

University of Vermont

The following table is taken from a report by Professor John T. Metcalf. It is based on the records of 1,012 students entering as freshmen between 1924 and 1927.

	Honors		*Passing*		*Warning*		*Dropped*		*Total*
Decile	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*	*%*	*No.*
10	49	(39)	59	(47)	9	(7)	8	(6)	125
9	11	(9)	73	(61)	24	(20)	12	(10)	120
8	17	(15)	54	(46)	28	(24)	18	(15)	117
7	13	(14)	50	(54)	21	(22)	9	(10)	93
6	10	(9)	54	(48)	30	(26)	19	(17)	113
5	5	(5)	42	(40)	37	(36)	20	(19)	104
4	8	(7)	41	(36)	43	(38)	22	(19)	114
3	3	(4)	34	(40)	28	(33)	19	(23)	84
2	2	(2)	19	(23)	32	(38)	31	(37)	84
1	0	(0)	11	(19)	13	(22)	34	(59)	58
Total	118	(11)	437	(44)	265	(26)	192	(19)	1,012

Virginia Polytechnic Institute

Professor Louis O'Shaughnessy has found a correlation of .384 between the first year scholarship records of 178 freshmen and their gross scores on the 1927 test. He has also found a correlation of .465 between the first year scholarship of 189 freshmen and their gross scores on the 1928 test.

University of Virginia

The two tables below are quoted from a report by Professor G. O. Ferguson on the 1925 examination.

TABLE 1.—*Correlations between Psychological Test Scores and Certain Measures of Academic Success*

	r
Psych. Exam. and Average College Grade, 1st term	.57
Psych. Exam. and Number of Term-Hours Passed, session	.50
Psych. Exam. and Grade in College Chemistry, 1st term	.41
Psych. Exam. and Grade in College Mathematics, 1st term	.45
Psych. Exam. and Grade in College French, 1st term	.51
Psych. Exam. and Grade in College English, 1st term	.63

TABLE 2.—*Comparison of Test Scores and College Grades*

Score-interval	*Term-hours passed*	*Av. grade 1st term*	*Score-interval*	*Term-hours passed*	*Av. grade 1st term*
95	46.5	89.2	45	31.0	76.2
90	41.0	83.3	40	30.6	76.2
85	41.0	83.5	35	23.0	72.5
80	43.8	85.0	30	28.0	76.4
75	40.0	84.0	25	21.7	72.0
70	37.5	83.5	20	19.5	71.7
65	32.4	81.5	15	20.2	74.0
60	28.5	74.0	10	19.5	71.5
55	31.5	77.5	5	10.5	66.2
50	28.5	77.5	0	3.0	61.7

Western State Teachers College (Kalamazoo, Michigan)

The following data were submitted by Paul V. Sangren and Homer L. J. Carter.

The correlation between test scores and college grades for three quarters were:

Fall quarter	.44 (520 cases)
Winter quarter	.39 (506 cases)
Spring quarter	.44 (463 cases)

Mr. Sangren has also made a study of the comparative standings of the various groups of students. The results are shown below.

Average Percentile Rankings on the Psychological Examination Made by Freshmen Students in the Various Departments at Western State Teachers College—Fall, 1929

Department	1927	1928	1929
A. B.	77	67	60
B. S.	63	37	66
Art	49	40	37
Art and Music	56	40	51
Business Administration	..	..	44
Commerce	52	54	65
Early Elementary	53	50	43
Home Economics	31	61	42
Junior High	70	64	68
Later Elementary	56	58	51
Manual Arts	30	35	37
Music	56	50	47
Physical Ed. for Men	36	27	38
Physical Ed. for Women	51	53	42
Rural	49	19	50
Senior High	62	62	77
Three Year Certificate	50	59	49
One Year Professional	53	..	39
State Life	49	..	..
Special, Unclassified	52	49	51

Winona State Teachers College

Professor W. A. Owens sends in another type of analysis showing the use of the test, namely, a comparison of the number of unsatisfactory grades made by various fractions of the lower ranking students. The results are arranged in a table showing the percentage of unsatisfactory grades made by various groups of students according to their percentile rank on the test.

Percentile	*Percentage of unsatisfactory grades*
1–25	57
1–15	63
1–10	64
1– 5	70

University of Wisconsin

The following tables were submitted by Professor V. A. C. Henmon of the Department of Psychology. They present a summary of Correlations with Scholarship, as measured by average number of grade points per credit in the first semester, 1927–28, for University of Wisconsin freshmen.

American Council Psychological Examination and Index of Scholarship

	No. of cases	*r*
College of Letters and Science	1221	.58
College of Engineering	205	.51
College of Agriculture	75	.60
Entire Freshman Class	1501	.52

High School Average and Index of Scholarship

	No. of cases	*r*
College of Letters and Science	1271	.61
College of Engineering	229	.41
College of Agriculture	80	.35
Entire Freshman Class	1534	.44

Y. M. C. A. College (Springfield, Massachusetts)

The following quotation is taken from a letter from John D. Brock:

You will be interested to know of the results of one brief study made recently on our Junior class. One hundred twenty-two (122) men entered as freshmen in the fall of 1927. Fifty-eight (58) have dropped out for various causes at different times during the past two years. Checking these students on the ranked psychological test (1927 edition), I find that twenty-eight (28), or half of this number from the lower quarter, only four of this group now remaining in college. The other half (28) were scattered through the highest, second and third quarters about equally. A large proportion of the lower quarter group were unable to continue because of low scholarship. There were only three from the highest, second and third quarters who discontinued because of low scholarship.

L. L. THURSTONE,
THELMA GWINN THURSTONE,
The University of Chicago.

Accredited Higher Institutions

IN 1924 the American Council on Education approved and published two reports of its Committee on Standards, recommending uniform standards as criteria for accrediting colleges, teacher-training institutions and junior colleges. Since then the various regional associations have worked continuously on this problem, have revised their respective lists each year and are gradually working toward uniform standards. Therefore, the list of accredited higher institutions published by the Council in 1929 is incomplete.

The following list is merely a compilation as of April 1, 1930, of the lists of the established accrediting agencies; namely, the Association of American Universities, the Association of Colleges and Preparatory Schools of the Middle States and Maryland, the Association of Colleges and Secondary Schools of the Southern States, the North Central Association of Colleges and Secondary Schools and the Northwest Association of Secondary and Higher Schools.

During the past year the New England Association of Colleges and Secondary Schools made institutions eligible to membership. The standards set up for institutional membership in this association are equivalent to those required for accrediting by the other regional associations. Therefore the institutional members of the New England Association are also included in this list.

It will be noted that the five regional associations of colleges and secondary schools just mentioned cover among them the entire United States with the exception of the far southwest. Hence institutions in that region would not appear in the following list unless they appear on the list of the Association of American Universities, which is a national list.

The American Council on Education has printed as a separate pamphlet its recommendations concerning standards for accrediting higher institutions. Copies of this pamphlet and of the accompanying list will be sent without charge on request addressed to the office of the Council.

ALABAMA

Name of Institution	*Location*
Alabama College for Women	Montevallo
Alabama Polytechnic Institute	Auburn
Birmingham-Southern College	Birmingham
Howard College	Birmingham
Judson College	Marion
Springhill College	Springhill
University of Alabama	University
Woman's College of Alabama	Montgomery

ARIZONA

Name of Institution	*Location*
Arizona State Teachers College	Flagstaff
University of Arizona	Tucson

ARKANSAS

Hendrix College	Conway
Ouachita College	Arkadelphia
University of Arkansas	Fayetteville

CALIFORNIA

California Institute of Technology	Pasadena
Claremont Colleges (Pomona; Scripps)	Claremont
College of the Holy Name	Oakland
College of the Pacific	Stockton
Dominican College of San Rafael	San Rafael
Mills College	Oakland
Occidental College	Los Angeles
St. Mary's College	St. Mary's
Stanford University	Stanford University
University of California	Berkeley
University of California	Los Angeles
University of Redlands	Redlands
University of Southern California	Los Angeles
Whittier College	Whittier

COLORADO

Colorado Agricultural College	Fort Collins
Colorado College	Colorado Springs
Colorado School of Mines	Golden
Colorado State Teachers College	Greeley
Loretto Heights College	Denver
University of Colorado	Boulder
University of Denver	Denver
Western State Teachers College	Gunnison

CONNECTICUT

Connecticut College for Women	New London
Trinity College	Hartford
Wesleyan University	Middletown
Yale University	New Haven

DELAWARE

University of Delaware	Newark

DISTRICT OF COLUMBIA

Name of Institution	*Location*
American University	Washington, D. C.
Catholic University of America	Washington, D. C.
George Washington University	Washington, D. C.
Georgetown University	Washington, D. C.
Howard University	Washington, D. C.
Trinity College	Washington, D. C.

FLORIDA

Florida State College for Women	Tallahassee
Rollins College	Winter Park
University of Florida	Gainesville

GEORGIA

Agnes Scott College	Decatur
Brenau College	Gainesville
Emory University	Atlanta
Georgia School of Technology	Atlanta
Georgia State College for Women	Milledgeville
Georgia State Woman's College	Valdosta
Mercer University	Macon
Shorter College for Women	Rome
University of Georgia	Athens
Wesleyan College	Macon

HAWAII

University of Hawaii	Honolulu

IDAHO

College of Idaho	Caldwell
University of Idaho	Moscow

ILLINOIS

Armour Institute of Technology	Chicago
Augustana College and Theological Seminary	Rock Island
Bradley Polytechnic Institute	Peoria
Carthage College	Carthage
De Paul University	Chicago
Eureka College	Eureka
Illinois College	Jacksonville
Illinois State Teachers College (Eastern)	Charleston
Illinois State Teachers College (Western)	Macomb
Illinois Wesleyan University	Bloomington

ILLINOIS—Continued

Name of Institution	*Location*
Illinois Woman's College	Jacksonville
James Millikin University	Decatur
Knox College	Galesburg
Lake Forest College	Lake Forest
Lewis Institute	Chicago
Loyola University	Chicago
Monmouth College	Monmouth
North Central College	Naperville
Northwestern University	Evanston
Rockford College	Rockford
Rosary College	River Forest
Shurtleff College	Alton
University of Chicago	Chicago
University of Illinois	Urbana
Wheaton College	Wheaton

INDIANA

Ball State Teachers College	Muncie
De Pauw University	Greencastle
Earlham College	Richmond
Franklin College of Indiana	Franklin
Hanover College	Hanover
Indiana State Teachers College	Terre Haute
Indiana University	Bloomington
Purdue University	Lafayette
Rose Polytechnic Institute	Terra Haute
St. Mary's College	Notre Dame
St. Mary of the Woods College	St. Mary of the Woods
University of Notre Dame du Lac	Notre Dame
Valparaiso University	Valparaiso
Wabash College	Crawfordsville

IOWA

Coe College	Cedar Rapids
Columbia College of Dubuque	Dubuque
Cornell College	Mt. Vernon
Drake University	Des Moines
Grinnell College	Grinnell
Iowa State College of Agriculture and Mechanic Arts	Ames
Iowa State Teachers College	Cedar Falls
Luther College	Decorah
Morningside College	Sioux City
Mt. St. Joseph College	Dubuque
Parsons College	Fairfield
Penn College	Oskaloosa

IOWA—Continued

Name of Institution	*Location*
St. Ambrose College	Davenport
Simpson College	Indianola
University of Dubuque	Dubuque
University of Iowa	Iowa City

KANSAS

Baker University	Baldwin
College of Emporia	Emporia
Friends University	Wichita
Kansas State Agricultural College	Manhattan
Kansas State Teachers College of Emporia	Emporia
Kansas State Teachers College	Hayes
Kansas State Teachers College	Pittsburg
Municipal University of Wichita	Wichita
Ottawa University	Ottawa
St. Benedict's College	Atchison
St. Mary's College	St. Mary's
Sterling College	Sterling
Southwestern College	Winfield
University of Kansas	Lawrence
Washburn College	Topeka

KENTUCKY

Berea College	Berea
Centre College of Kentucky	Danville
Georgetown College	Georgetown
Transylvania College	Lexington
University of Kentucky	Lexington
University of Louisville	Louisville

LOUISIANA

Centenary College of Louisiana	Shreveport
Louisiana College	Pineville
Louisiana Polytechnic Institute	Ruston
Louisiana State University	Baton Rouge
Loyola University	New Orleans
Newcomb College	New Orleans
Southwestern Louisiana Institute	Lafayette
Tulane University of Louisiana	New Orleans

MAINE

Bates College	Lewiston
Bowdoin College	Brunswick
Colby College	Waterville
University of Maine	Orono

MARYLAND

Name of Institution	*Location*
College of Notre Dame of Maryland	Baltimore
Goucher College	Baltimore
Hood College	Frederick
Johns Hopkins University	Baltimore
Morgan College	Baltimore
Mt. St. Mary's College	Emmitsburg
St. John's College	Annapolis
St. Joseph's College	Emmitsburg
University of Maryland	College Park
Washington College	Chestertown
Western Maryland College	Westminster

MASSACHUSETTS

Amherst College	Amherst
Boston College	Boston
Boston University	Boston
Clark University	Worcester
Harvard University	Cambridge
Holy Cross College	Worcester
International Y. M. C. A. College	Springfield
Massachusetts Agricultural College	Amherst
Massachusetts Institute of Technology	Cambridge
Mt. Holyoke College	South Hadley
Radcliffe College	Cambridge
Simmons College	Boston
Smith College	Northampton
Tufts College	Tufts College
Wellesley College	Wellesley
Wheaton College	Norton
Williams College	Williamstown
Worcester Polytechnic Institute	Worcester

MICHIGAN

Albion College	Albion
Alma College	Alma
Battle Creek College	Battle Creek
Calvin College	Grand Rapids
College of the City of Detroit	Detroit
Hillsdale College of Michigan	Hillsdale
Hope College	Holland
Kalamazoo College	Kalamazoo
Marygrove College	Detroit
Michigan College of Mining and Technology	Houghton

MICHIGAN—Continued

Name of Institution	*Location*
Michigan State College of Agriculture and Applied Science	East Lansing
Michigan State Normal College	Ypsilanti
Michigan State Normal School (Central)	Mount Pleasant
Michigan State Normal School (Western)	Kalamazoo
Northern State Normal School	Marquette
University of Detroit	Detroit
University of Michigan	Ann Arbor

MINNESOTA

Carleton College	Northfield
College of St. Catherine	St. Paul
College of St. Teresa	Winona
College of St. Thomas	St. Paul
Concordia College	Moorhead
Gustavus Adolphus College	St. Peter
Hamline University	St. Paul
Macalester College	St. Paul
St. Olaf College	Northfield
University of Minnesota	Minneapolis

MISSISSIPPI

Blue Mountain College	Blue Mountain
Millsaps College	Jackson
Mississippi Agricultural and Mechanical College	A. and M. College
Mississippi College	Clinton
Mississippi State College for Women	Columbus
Mississippi Woman's College	Hattiesburg
University of Mississippi	University

MISSOURI

Central College	Fayette
Culver-Stockton College	Canton
Drury College	Springfield
Lindenwood College	St. Charles
Missouri State Teachers College (Central)	Warrensburg
Missouri State Teachers College (Northeast)	Kirksville
Missouri State Teachers College (Northwest)	Maryville
Missouri State Teachers College (Southeast)	Cape Girardeau

MISSOURI—Continued

Name of Institution	*Location*
Missouri State Teachers College (Southwest)	Springfield
Missouri Valley College	Marshall
Park College	Parkville
St. Louis University	St. Louis
Tarkio College	Tarkio
University of Missouri	Columbia
Washington University	St. Louis
Webster College for Women	Webster Groves
Westminster College	Fulton
William Jewell College	Liberty

MONTANA

Montana State College	Bozeman
State University of Montana	Missoula

NEBRASKA

Creighton University	Omaha
Doane College	Crete
Hastings College	Hastings
Nebraska Wesleyan University	Lincoln
University of Nebraska	Lincoln

NEVADA

University of Nevada	Reno

NEW HAMPSHIRE

Dartmouth College	Hanover
University of New Hampshire	Durham

NEW JERSEY

College of St. Elizabeth	Convent Station
Georgian Court College	Lakewood
Princeton University	Princeton
Rutgers University	New Brunswick
Stevens Institute of Technology	Hoboken

NEW MEXICO

New Mexico College of Agriculture and Mechanic Arts	State College
State University of New Mexico	Albuquerque

NEW YORK

Adelphi College of Brooklyn	Brooklyn
Alfred University	Alfred

NEW YORK—Continued

Name of Institution	*Location*
Barnard College	New York City
Canisius College of Buffalo	Buffalo
Clarkson School of Technology	Potsdam
Colgate University	Hamilton
College of the City of New York	New York City
College of Mt. St. Vincent on the Hudson	New York City
College of New Rochelle	New Rochelle
College of the Sacred Heart	New York City
College of St. Rose	Albany
Columbia University	New York City
Cornell University	Ithaca
D'Youville College	Buffalo
Elmira College	Elmira
Fordham University	Fordham
Hamilton College	Clinton
Hobart College	Geneva
Hunter College of the City of New York	New York City
Keuka College	Keuka Park
Manhattan College	New York City
Marymount College	Tarrytown-on-Hudson
New York University	New York City
Niagara University	Niagara
Polytechnic Institute of Brooklyn	Brooklyn
Rensselaer Polytechnic Institute	Troy
Russell Sage College	Troy
St. Bonaventure's College and Seminary	St. Bonaventure
St. John's College	Brooklyn
St. Joseph's College for Women	Brooklyn
St. Lawrence University	Canton
St. Stephen's College	Annandale
Skidmore College	Saratoga Springs
Syracuse University	Syracuse
Union College	Schenectady
United States Military Academy	West Point
University of Buffalo	Buffalo
University of Rochester	Rochester
Vassar College	Poughkeepsie
Wells College	Aurora
William Smith College	Geneva

NORTH CAROLINA

Catawba College	Salisbury
Davidson College	Davidson

NORTH CAROLINA—Continued

Name of Institution	*Location*
Duke University	Durham
Elon College	Elon
Greensboro College	Greensboro
Guilford College	Guilford College
Lenoir-Rhyne College	Hickory
Meredith College	Raleigh
North Carolina State College of Agriculture and Engineering	West Raleigh
North Carolina College for Women	Greensboro
Salem College	Winston-Salem
University of North Carolina	Chapel Hill
Wake Forest College	Wake Forest

NORTH DAKOTA

Jamestown College	Jamestown
North Dakota Agricultural College	Agricultural College
University of North Dakota	Grand Forks

OHIO

Antioch College	Yellow Springs
Ashland College	Ashland
Baldwin Wallace College	Berea
Capital University	Columbus
Case School of Applied Science	Cleveland
College of Wooster	Wooster
Denison University	Granville
Heidelberg College	Tiffin
Hiram College	Hiram
John Carroll University	Cleveland
Kenyon College	Gambier
Lake Erie College	Painesville
Marietta College	Marietta
Miami University	Oxford
Mt. Union College	Alliance
Muskingum College	New Concord
Oberlin College	Oberlin
Ohio State University	Columbus
Ohio University	Athens
Ohio Wesleyan University	Delaware
Otterbein University	Westerville
St. Xavier College	Cincinnati
University of Akron	Akron
University of Cincinnati	Cincinnati
University of the City of Toledo	Toledo
University of Dayton	Dayton

OHIO—Continued

Name of Institution	*Location*
Western College for Women	Oxford
Western Reserve University	Cleveland
Wittenberg College	Springfield

OKLAHOMA

Oklahoma Agricultural and Mechanical College	Stillwater
Oklahoma College for Women	Chickasha
Phillips University	Enid
University of Oklahoma	Norman
University of Tulsa	Tulsa

OREGON

Linfield College	McMinville
Oregon State Agricultural College	Corvallis
Reed College	Portland
University of Oregon	Eugene
Willamette University	Salem

PENNSYLVANIA

Albright College	Myerstown
Allegheny College	Meadville
Bryn Mawr College	Bryn Mawr
Bucknell University	Lewisburg
Carnegie Institute of Technology	Pittsburgh
Dickinson College	Carlisle
Drexel Institute	Philadelphia
Franklin and Marshall College	Lancaster
Geneva College	Beaver Falls
Gettysburg College	Gettysburg
Grove City College	Grove City
Haverford College	Haverford
Juniata College	Huntingdon
Immaculata College	Immaculata
Lafayette College	Easton
Lebanon Valley College	Annville
Lehigh University	Bethlehem
Lincoln University	Lincoln University
Marywood College	Scranton
Moravian College and Theological Seminary	Bethlehem
Muhlenberg College	Allentown
Pennsylvania College for Women	Pittsburgh
Pennsylvania State College	State College
St. Joseph College	Philadelphia
St. Thomas College	Scranton

PENNSYLVANIA—Continued

Name of Institution	*Location*
St. Vincent College	Beatty
Seton Hill College	Greensburg
Swarthmore College	Swarthmore
Temple University	Philadelphia
Thiel College	Greenville
University of Pennsylvania	Philadelphia
University of Pittsburgh	Pittsburgh
Ursinus College	Collegeville
Villanova College	Villanova
Washington and Jefferson College	Washington
Westminster College	New Wilmington
Wilson College	Chambersburg

RHODE ISLAND

Brown University	Providence
Pembroke College	Providence
Rhode Island State College	Kingston

SOUTH CAROLINA

Clemson College	Clemson
Coker College	Hartsville
College of Charleston	Charleston
Converse College	Spartanburg
Erskine College	Due West
Furman University	Greenville
Limestone College	Gaffney
Presbyterian College of South Carolina	Clinton
The Citadel	Charleston
University of South Carolina	Columbia
Winthrop College	Rock Hill
Wofford College	Spartanburg

SOUTH DAKOTA

Dakota Wesleyan University	Mitchell
Huron College	Huron
South Dakota State College of Agriculture and Mechanic Arts	Brookings
South Dakota State School of Mines	Rapid City
University of South Dakota	Vermillion
Yankton College	Yankton

TENNESSEE

Carson and Newman College	Jefferson City
George Peabody College for Teachers	Nashville
Maryville College	Maryville
Southwestern	Memphis

TENNESSEE—Continued

Name of Institution	*Location*
Tusculum College	Greenville
University of Chattanooga	Chattanooga
University of the South	Sewanee
University of Tennessee	Knoxville
Vanderbilt University	Nashville

TEXAS

Agricultural and Mechanical College of Texas	College Station
Baylor College for Women	Belton
Baylor University	Waco
College of Industrial Arts	Denton
Incarnate Word College	San Antonio
Our Lady of the Lake College	San Antonio
Rice Institute	Houston
Simmons University	Abilene
Southwestern University	Georgetown
Southern Methodist University	Dallas
Texas Christian University	Fort Worth
Texas Technological College	Lubbock
Trinity University	Waxahachie
University of Texas	Austin

UTAH

Brigham Young University	Provo
University of Utah	Salt Lake City
Utah Agricultural College	Logan

VERMONT

Middlebury College	Middlebury
University of Vermont	Burlington

VIRGINIA

Bridgewater College	Bridgewater
College of William and Mary in Virginia	Williamsburg
Emory and Henry College	Emory
Hampden-Sidney College	Hampden-Sidney
Lynchburg College	Lynchburg
Randolph-Macon College for Men	Ashland
Randolph-Macon Woman's College	Lynchburg
Roanoke College	Salem
Sweet Briar College	Sweet Briar
University of Richmond	Richmond
University of Virginia	Charlottesville
Virginia Military Institute	Lexington
Virginia Polytechnic Institute	Blacksburg
Washington and Lee University	Lexington

WASHINGTON

Name of Institution	*Location*
College of Puget Sound	Tacoma
Gonzaga University	Spokane
State College of Washington	Pullman
University of Washington	Seattle
Whitman College	Walla Walla

WEST VIRGINIA

Bethany College	Bethany
Marshall College	Huntington
West Virginia Collegiate Institute	Institute
West Virginia University	Morgantown
West Virginia Wesleyan College	Buckhannon

WISCONSIN

Beloit College	Beloit
Carroll College	Waukesha
Lawrence College	Appleton
Marquette University	Milwaukee
Milwaukee-Downer College	Milwaukee
Ripon College	Ripon
St. Mary's College	Prairie du Chien
University of Wisconsin	Madison
Wisconsin State Teachers College	LaCrosse
Wisconsin State Teachers College	Oshkosh

WYOMING

University of Wyoming	Laramie

Teachers' Colleges

CALIFORNIA

State Teachers College	San Diego

GEORGIA

Georgia State Teachers College	Athens

IDAHO

State Normal School	Albion
State Normal School	Lewiston

ILLINOIS

Northern Illinois State Teachers' College	De Kalb
Southern Illinois State Normal Univ.	Carbondale

KENTUCKY

Name of Institution	*Location*
Eastern Kentucky State Teachers' College	Richmond
Murray State Teachers College	Murray
Western Kentucky Teachers' College	Bowling Green

LOUISIANA

Louisiana State Normal College	Natchitoches

MICHIGAN

Detroit Teachers' College	Detroit

MINNESOTA

State Teachers' College	Moorhead
State Teachers' College	Winona
St. Cloud State Teachers' College	St. Cloud

MISSOURI

Harris Teachers' College	St. Louis
Lincoln University	Jefferson City

MONTANA

State Normal School	Dillon

NEBRASKA

State Normal School and Teachers' College	Chadron
State Normal School and Teachers' College	Kearney
State Normal School and Teachers' College	Peru
State Normal School and Teachers' College	Wayne

NEW MEXICO

New Mexico Normal University	East Las Vegas
State Teachers' College	Silver City

NORTH CAROLINA

East Carolina Teachers' College	Greenville

Name of Institution	*Location*
NEW YORK	
New York State College for Teachers	Albany
NORTH DAKOTA	
North Dakota State Normal School	Dickinson
State Normal and Industrial School	Ellendale
State Normal School	Mayville
State Teachers' College	Valley City
Teachers' College	Minot
OHIO	
Cleveland School of Education	Cleveland
State Normal College	Bowling Green
State Normal College	Kent
OKLAHOMA	
Central State Teachers' College	Edmond
East Central State Teachers' College	Ada
Northeastern State Teachers' College	Tahlequah
Northwestern State Teachers' College	Alva
Southeastern State Teachers' College	Durant
Southwestern State Teachers' College	Weatherford
OREGON	
Southern Oregon Normal School	Ashland
State Normal School	Monmouth
SOUTH DAKOTA	
Northern Norm. and Indus. School	Aberdeen
State Normal School	Madison
South Dakota State Normal School	Spearfish
TENNESSEE	
East Tennessee State Teachers' College	Johnson City
Middle Tennessee State Teachers College	Murfreesboro
West Tennessee State Teachers' College	Memphis
TEXAS	
East Texas Teachers' College	Commerce
North Texas Teachers' College	Denton
Sam Houston College	Huntsville
South Texas State Teachers' College	Kingsville
Southwest Texas Teachers' College	San Marcos
Stephen F. Austin State Teachers' College	Nagodoches
West Texas Teachers' College	Canyon

VIRGINIA

Name of Institution	*Location*
State Teachers' College	East Radford
State Teachers' College	Farmville
State Teachers' College	Harrisonburg

WASHINGTON

State Normal School	Bellingham
State Normal School	Cheney
State Normal School	Ellensburg

WEST VIRGINIA

West Virginia State Normal School	Fairmont

WISCONSIN

State Normal School	Superior
Wisconsin State Teachers' College	Milwaukee
Stout Institute	Menomonie

Junior Colleges

ALABAMA

Marion Institute	Marion

ARIZONA

Phoenix Junior College	Phoenix

ARKANSAS

Arkansas Agricultural and Mechanical College	Jonesboro
Arkansas Agricultural and Mechanical College	Monticello
Arkansas Polytechnic Institute	Russellville
Central Junior College	Conway
Little Rock Junior College	Little Rock
State Agricultural and Mechanical College	Magnolia

COLORADO

Regis College	Denver

GEORGIA

Andrew College	Cuthbert
Junior College of Augusta	Augusta

IDAHO

Name of Institution	*Location*
University of Idaho, Southern Branch	Pocatello

ILLINOIS

Elmhurst College	Elmhurst
Frances Shimer School	Mount Carrol
Joliet Junior College	Joliet
La Salle-Peru-Oglesby Junior College	La Salle
Monticello Seminary	Godfrey
Morton Junior College	Cicero
North Park Junior College	Chicago
Y. M. C. A. School of Liberal Arts	Chicago

IOWA

Graceland College	Lamoni
Mason City Junior College	Mason City
St. Joseph Junior College	Ottumwa

KANSAS

St. Mary College, The	Leavenworth

KENTUCKY

Bethel Woman's College	Hopkinsville

MICHIGAN

Bay City Junior College	Bay City
Emmanuel Missionary College	Berrien Springs
Flint Junior College	Flint
Grand Rapids Junior College	Grand Rapids
Highland Park Junior College	Highland Park
Muskegon Junior College	Muskegon
Port Huron Junior College	Port Huron

MINNESOTA

Duluth Junior College	Duluth
Hibbing Junior College	Hibbing
Rochester Junior College	Rochester
Virginia Junior College	Virginia

MISSISSIPPI

Gulf Park College	Gulfport
Hinds County Junior College	Raymond
Whitworth College	Brookhaven

MISSOURI

Name of Institution	*Location*
Christian College	Columbia
Flat River Junior College	Flat River
Junior College of Kansas City	Kansas City
Kemper Military School	Boonville
The Principia	St. Louis
St. Joseph Junior College	St. Joseph
Stephens Junior College	Columbia
Teachers College of Kansas City	Kansas City
Wentworth Military Academy	Lexington
William Woods College	Fulton

MONTANA

Mt. St. Charles College	Helena

NEBRASKA

Union College	College View

NORTH CAROLINA

Mars Hill College	Mars Hill
St. Mary's School	Raleigh

OKLAHOMA

Northeastern Oklahoma Junior College	Miami
Panhandle Agricultural and Mechanical College	Goodwill

TENNESSEE

Hiwassee College	Madisonville
Tennessee Wesleyan College	Athens
Ward Belmont College	Nashville

TEXAS

John Tarleton Agricultural College	Stephenville
Lon Morris College	Jacksonville

VIRGINIA

Averett College	Danville
Sullins College	Bristol
Virginia Intermont College	Bristol

WEST VIRGINIA

Potomac State School	Keyser